



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

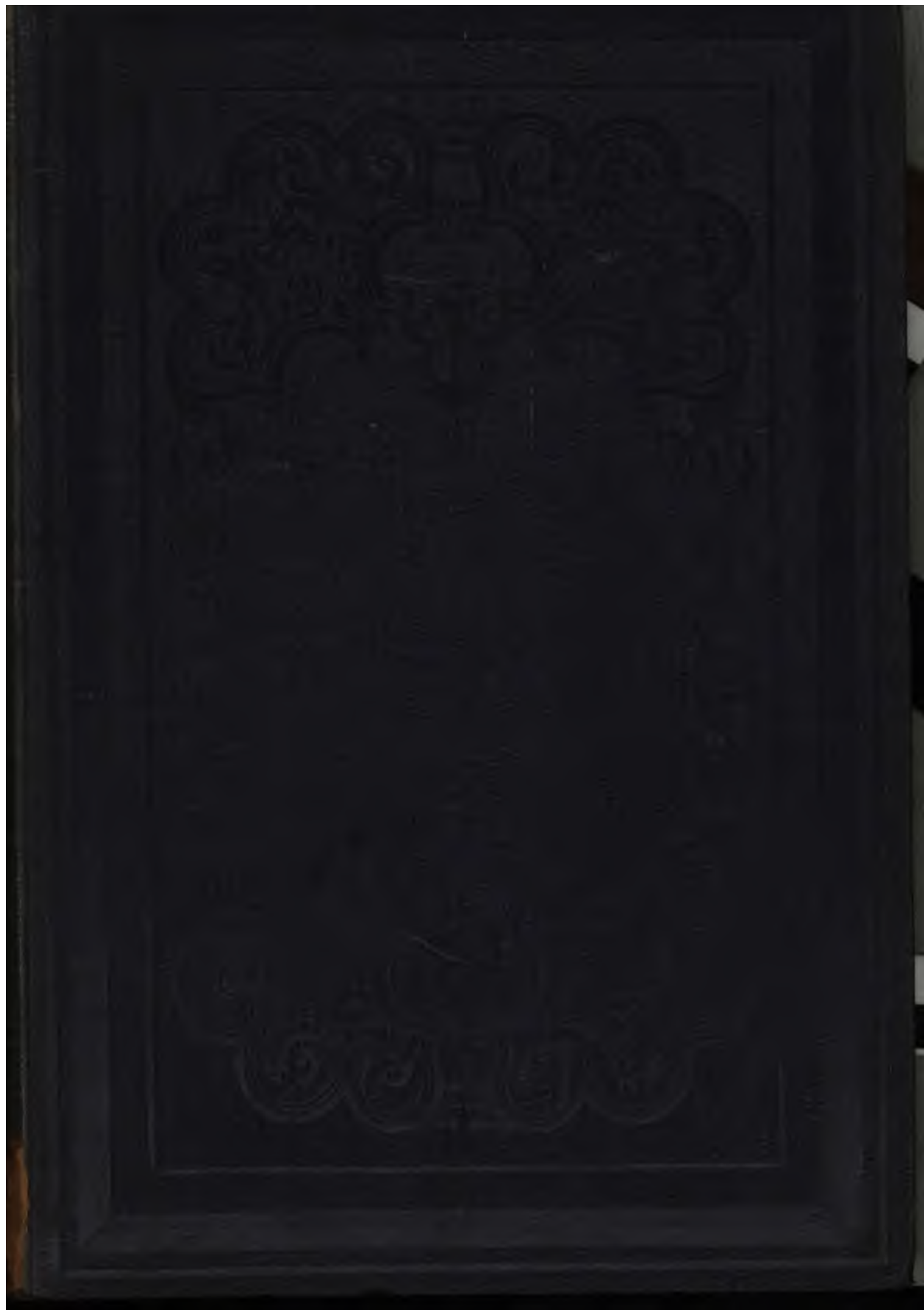
Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>





600040537P



15 & 16 VICTORIÆ, Cap. 83. Sec. XXXII.



ALPHABETICAL INDEX
OF
PATENTEES AND APPLICANTS FOR PATENTS
OF INVENTION,
For the Year 1863.

Printed and Published by Order of the Commissioners of Patents,

UNDER THE

ACT of 15 & 16 VICTORIÆ, Cap. 83. Sec. XXXII.

BY BENNET WOODCROFT,

SUPERINTENDENT OF SPECIFICATIONS, INDEXES, &c.

LONDON:

PRINTED BY GEORGE EDWARD EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,
SOUTHAMPTON BUILDINGS, HOLBORN.

[Price 11s.]

1864.

ALPHABETICAL INDEX

OF

PATENTEES AND APPLICANTS FOR PATENTS OF
INVENTION,

FOR THE YEAR 1863.

Aba]

[Ada

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
A.			
ABADIE, ALFRED - - -	1349	29th May 1863	Railway breaks.
ABEL, CHARLES DENTON -	418	16th Feb. 1863	An improved omnibus. (Communicated by Justin François Audineau.)
ABEL, CHARLES DENTON -	2750	6th Nov. 1863	Fluid meters. (Communicated by Friederich Klingensfeld.)
ABEL, CHARLES DENTON -	2778	7th Nov. 1863	Apparatus for raising and lowering bodies. (Communicated by Friederich Klingensfeld.)
ABERDEIN, WILLIAM LYLE -	1823	21st July 1863	Machinery for breaking or softening and preparing flax, hemp, jute, tow and other fibrous substances.
ABRAHALL, JOHN - - -	591	3rd March 1863	Bracelets and brooches.
ABRAHAMS, JOSEPH - - -	1919	4th Aug. 1863	Brakes for railway and other carriages.
ACCARAIN, LOUIS - - -	2967	25th Nov. 1863	Manufacture of paper, thread, cordage and fabrics from beet root.
ADAM, LOUIS - - - -	2212	8th Sept. 1863	An improved machine for mowing grass or reaping grain.
ADAMES, CHARLES HENRY -	2195	5th Sept. 1863	Manufacture of lids or covers for certain articles of hollow ware.
ADAMS, HENRY WRIGHT -	2483	9th Oct. 1863	Improvements in amalgamating and separating gold and silver from quartz and earths containing the same, and in apparatus employed therein. (Patented by Richard Archibald Brooman.)
ADAMS, THOMAS - - -	1443	10th June 1863	Slide and other valves and apparatus connected therewith.
ADAMS, THOMAS - - -	2709	2nd Nov. 1863	An improved kind of envelope for the transmission of patterns or samples of merchandize by post.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ADAMS, WILLIAM BRIDGES -	1674	6th July 1863	Wheels and their tyres, axles and axle boxes.
ADAMS, WILLIAM BRIDGES -	2896	19th Nov. 1863	Improvements in wheels, tyres, axles and axle boxes, and modes of applying them.
ADAMS, WILLIAM BRIDGES -	3195	18th Dec. 1863	Locomotive engines and trains for railways, tramways and common roads.
ADAMSON, DANIEL - -	3233	22nd Dec. 1863	Machinery or apparatus employed in the manufacture of steel and iron.
ADDINGTON, PAUL - - -	1264	20th May 1863	Manufacture of varnishes.
ADIE, PATRICK - - -	608	4th March 1863	Means and apparatus for measuring angular and actual distances.
ADLAM, SAMUEL, JR. - -	610	4th March 1863	An improved lamp burner. (Patented by Edward William Binney.)
ADLER, ANDRÉ - - -	2209	8th Sept. 1863	Machines for working and preparing skins. (Patented by Richard Archibald Brooman.)
AGATE, ROBERT - - -	1714	9th July 1863	Improvements in the construction of skylights and roof lights for railway stations, conservatories and other similar structures.
AGER, WILSON - - -	822	30th March 1863	Machinery or apparatus for cleaning and decorticating grain.
AGNEW, ARTHUR - - -	2139	29th Aug. 1863	Breech-loading fire-arms.
AGNEW, THOMAS, JR. - -	1382	2nd June 1863	Certain improvements in apparatus for coating or covering moulded or other surfaces with certain composition or material.
AGUDIO, THOMAS - - -	3188	17th Dec. 1863	Improvements in cleaning roadways and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
AGUITTON, DAVID ALEXANDRE	2298	18th Sept. 1863	An improved thread for fishing nets. (Patented by Richard Archibald Brooman.)
AINSWORTH, WILLIAM - -	2538	17th Oct. 1863	Certain improvements in looms for weaving.
AITKEN, RUSSEL - - -	1441	10th June 1863	Permanent way of railways.
AITKEN, RUSSEL - - -	2503	12th Oct. 1863	Permanent way of railways.
ALBINI, AUGUSTO - - -	2095	30th Nov. 1863	Improvements in ships of war and in arming ships of war.
ALBINSON, JOHN HOUGHTON -	549	27th Feb. 1863	Improvements in spinning, doubling, throwing and reeling silk, and in the machinery employed therein.
ALCAN, EMILE - - -	1798	17th July 1863	An improvement in gas-burners. (Communicated by Adolph Bay.)
ALCAN, EMILE - - -	1829	21st July 1863	Apparatus for condensing steam. (Communicated by Leon Gauchez.)
ALCAN, EMILE - - -	2171	2nd Sept. 1863	A new method of and apparatus for feeding wool and other textile and filamentous substances into carding, combing and other machines for treating such substances. (Communicated by Jean Sebastien Bolette.)
ALCAN, EMILE - - -	2323	21st Sept. 1863	Shears for cutting metal threads, wires and rods, applicable also for gauging wires. (Communicated by Leon Gauchez.)
ALCAN, EMILE - - -	2324	21st Sept. 1863	Condensers applicable to wool carding-engines. (Communicated by Leon Gauchez.)
ALCAN, EMILE - - -	2586	21st Oct. 1863	An improved method of figuring and ornamenting cloths and other fabrics, and apparatus employed therein. (Communicated by François Vouillon.)

[A]c]

AND APPLICANTS FOR PATENTS OF INVENTION.

[And

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ALCOCK, JOHN - - -	2608	22nd Oct. 1863	Machinery for plaiting or folding fabrics.
ALDERTON, THOMAS WRIGHT -	2713	3rd Nov. 1863	Sewing-machines.
ALEXANDER, ROBERT - -	695	14th March 1863	Improvements in mariners' compasses and the parts in connection therewith, and in the application thereof to magnetic instruments.
ALGER, CHARLES COFFEY -	2120	27th Aug. 1863	Breech-loading fire-arms. (Patented by William Edward Newton.)
ALISON, ALEXANDER - -	2635	24th Oct. 1863	Improvements in atmospheric railways and in carriages for the same.
ALISON, ALEXANDER - -	3191	18th Dec. 1863	Atmospheric railways.
ALISON, JOHN - - -	2128	28th Aug. 1863	Improvements in apparatus for tilling land, which improvements are chiefly applicable when steam power is employed.
ALLCROFT, GEORGE - -	3	1st Jan. 1863	Pressure gauges and vacuum gauges.
ALLEN, CECIL - - -	69	8th Jan. 1863	Apparatus for signalling on railways by detonating or explosive signals.
ALLEN, EDWARD ELLIS -	557	27th Feb. 1863	Improvements in the construction of underground railways or subways, and in carriages to be used or worked therein.
ALLEN, JAMES - - -	2290	18th Sept. 1863	Construction of valves and cocks for steam, water, gas and other fluids.
ALLEN, RICHARD LAMB -	1190	12th May 1863	Reaping and mowing machines. (Patented by Henry Wickens.)
ALLEN, WILLIAM - - -	217	24th Jan. 1863	Certain improvements in machinery or apparatus for grinding or pointing the "cards" employed in carding-engines.
ALLEN, WILLIAM - - -	618	5th March 1863	Certain improvements in machinery or apparatus for grinding "cards" employed in carding-engines.
ALLEN, WILLIAM DANIEL -	2760	6th Nov. 1863	Casting ingots of steel.
ALLIN, THOMAS - - -	1980	11th Aug. 1863	An improved process for hardening cast iron. (Patented by Alfred Vincent Newton.)
ALLISTON, THOMAS - -	1634	1st July 1863	An improved mode of and apparatus for manufacturing metallic joints for bedsteads, and the application of such joints to certain parts of bedsteads.
ALSINA, PIERRE - - -	2615	23rd Oct. 1863	An improved apparatus for regulating the emission of gas. (Patented by Joseph Claes.)
AMBROUSEUS, HANS - -	996	22nd April 1863	Improved apparatus for ascertaining the temperature of steam and its power of tension. (Patented by Frederick Edward Bryant.)
AMERICAN SHOE TIP COMPANY	2382	28th Sept. 1863	Improvements in the manufacture of boot and shoe toe pieces or tips, and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
AMIES, NATHANIEL JONES -	1275	21st May 1863	Certain improvements in the manufacture of elastic webbing.
AMOS, CHARLES EDWARD -	110	13th Jan. 1863	Machinery for the manufacture of paper.
AMOUROUS, EDOUARD - -	2126	28th Aug. 1863	Apparatus for separating solid from fluid fecal matters.
ANDERSON, JAMES - -	623	5th March 1863	Means or apparatus for the manufacture of looped fabrics.

And]

ALPHABETICAL INDEX OF PATENTEEES

[Art

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ANDERSON, JOHN - - -	778	25th March 1863	Certain improvements in machinery or apparatus for preparing and spinning cotton and other fibrous substances.
ANDERTON, JAMES JOHN -	2411	1st Oct. 1863	Manufacture of boots and shoes.
ANDERTON, JAMES JOHN -	2505	12th Oct. 1863	Machinery for cutting and finishing the edges of the soles and heels and the bottoms of boots and shoes.
ANDREUX, JEAN BAPTISTE -	1896	31st July 1863	Application of steam to toy boats or other similar toys where steam can be employed as a motive-power.
ANDREWES, CHARLES JAMES -	1671	4th July 1863	Arrangement and construction of fixed and portable combined thrashing-machines.
ANDREWS, ALFRED - - -	1988	12th Aug. 1863	Improvements in the nails commonly called screw rivets, which improvements are also applicable to other nails and spikes.
ANDREWS, CHARLES JAMES -	1377	2nd June 1863	Valves and apparatus for regulating the speed of steam-engines. (Partly communicated by Frederic Perry.)
ANDREWS, WILLIAM - - -	1620	29th June 1863	Apparatus for insulating electric telegraph wires.
ANGELIS, IGNAZIO DE - -	2314	19th Sept. 1863	An improved apparatus for obtaining motive-power. (Communicated by Frederico Salomone.)
ANTHOINE, JOSEPH JULES -	1512	16th June 1863	Improvements in protecting or preserving the silvering or quicking on glass, and in the manufacture of glass vessels for silvering or quicking. (Patented by Richard Archibald Brooman.)
ANTILL, ALFRED - - -	3067	7th Dec. 1863	An improved mode of manufacturing joints and catches for brooches and other articles of jewellery.
APPLEBY, JOSHUA - - -	1093	30th April 1863	Propelling ships and barges.
APPLEGATE, FRANK - - -	759	21st March 1863	Apparatus for making certain indications in railway carriages.
APPLEGATE, FRANK - - -	780	21st March 1863	Time indicators.
APPLEGATE, FRANK - - -	799	26th March 1863	Railway carriage doors.
APPLEGATE, FRANK - - -	1114	4th May 1863	Spring balances and pressure gauges.
APPLEGATE, FRANK - - -	1121	5th May 1863	Stopping and starting railway trains.
APPS, THOMAS - - -	1891	30th July 1863	Four-wheeled vehicles.
ARCET, JEAN EUGENE D' -	2234	10th Sept. 1863	Purification and disinfection of hydrocarbons and especially of oils produced by the distillation of coal, schist and boghead. (Patented by William Clark.)
ARDREY, SAMUEL BRADLEY -	3254	23rd Dec. 1863	Lathes for turning.
ARMENGAUD, JACQUES EUGENE	904	9th April 1863	An improvement in stirrups and in the mode of attaching the same to saddles. (Patented by Alfred Vincent Newton.)
ARMITAGE, RICHARD - - -	782	25th March 1863	Means or apparatus for stretching fabrics.
ARMSTRONG, HENRY - - -	1695	8th July 1863	Manufacture of alum.
ARMSTRONG, JOHN WARD - -	1966	8th Aug. 1863	Improvements in fastening and in securing in position the rails of railways, the said fastening being applicable for other uses.
ARROTT, ALEXANDER ROBERT- [SON.	1899	31st July 1863	Bleaching certain vegetable fibres used for textile or other purposes, whether in the raw state or manufactured.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ARTHUR, JOSEPH - - -	2045	18th Aug. 1863	An improved apparatus for the prevention, cure and relief of hernia of every description, together with prolapsus uteri, uterine hemorrhage, hernia humoralis, and as a general support for enlargement of the abdomen from whatever cause proceeding.
ASBURY, WILLIAM - - -	2018	14th Aug. 1863	Axles and axle-boxes and the parts of wheels immediately connected therewith.
ASH, CHARLES FREDERICK -	235	27th Jan. 1863	Manufacture of cornices, joints and laths of bedsteads and other articles of furniture.
ASHE, ISAAC - - - -	152	17th Jan. 1863	Apparatus for preventing sea sickness.
ASHFORD, WILLIAM HENRY -	1211	14th May 1863	Improvements in nails or rivets for boots and shoes, applicable to other purposes.
ASHMORE, THOMAS - - -	45	6th Jan. 1863	Machinery for manufacturing bread, biscuits and other like articles.
ASHWIN, THOMAS - - -	2001	13th Aug. 1863	A new or improved dress fastening, which said fastening may also be applied to the fastening of braces, belts and other bands, and to other like purposes.
ASHWORTH, JOHN, JR. - -	1293	23rd May 1863	Lap machines for preparing cotton and other fibrous substances.
ASKEW, CHARLES - - -	236	27th Jan. 1863	An improved railway chair and joint for rails on railways.
ASPINALL, ALFRED JOHNSON -	3065	7th Dec. 1863	An improved hand stamp or seal for marking or impressing consecutive numbers or figures.
ASQUITH, JAMES DIXON - -	806	27th March 1863	Rag machines.
ASTBURY, JOSEPH - - -	3189	18th Dec. 1863	Forge hammers.
ASTBURY, WILLIAM - - -	1726	10th July 1863	Improvements in traction engines and in apparatus for ploughing and tilling land by steam and other power, part of which improvements is also applicable to driving or giving motion to machinery.
ASTROP, WILLIAM - - -	27	3rd Jan. 1863	Manufacture of paper.
ATHERLEY, EDMOND GIBSON -	2652	27th Oct. 1863	Obtaining motive-power by certain arrangements of machinery and water.
ATKINSON, CHARLES WILKINS	1136	6th May 1863	An improved steam or other motive-power engine.
ATKINSON, WILLIAM HENRY -	712	17th March 1863	Improvements in studs or fastenings adapted to holding together parts of shirt fronts, wristbands, collars, gloves and other articles of wearing apparel.
ATTOCK, GEORGE - - -	2145	31st Aug. 1863	Assistant bearing springs for locomotive engines, railway carriages, waggons and trucks.
ATTREE, ARTHUR - - -	2396	30th Sept. 1863	An improved cigar holder. (Patented by Eliza Selene Attree.)
ATTREE, ELIZA SELENE - -	2396	30th Sept. 1863	An improved cigar holder. (Communicated by Arthur Attree.)
AUBERT, HUGUES FRANÇOIS -	2501	12th Oct. 1863	Shears for cutting metals and other substances. (Patented by William Edward Gedge.)
AUBERT, JEAN - - -	3083	8th Dec. 1863	Railway carriage and other brakes.
AUCHINCLOSS, WILLIAM STUART	3115	10th Dec. 1863	Certain improvements in port closers for vessels of war and forts. (Patented by William Clark.)

Aud]

ALPHABETICAL INDEX OF PATENTEEES

[Bag

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
AUDINEAU, JUSTIN FRANÇOIS	416	16th Feb. 1863	An improved omnibus. (Patented by Charles Denton Abel.)
AUDINWOOD, HENRY - -	3101	9th Dec. 1863	Raising or removing grain from one place to another.
AUDINWOOD, WILLIAM - -	2733	4th Nov. 1863	Thrashing-machines.
AUSTIN, WILLIAM - - -	1781	16th July 1863	Construction of ships and other floating bodies.
AUVRAY, ANTOINE - - -	713	17th March 1863	Modes or means for framing pictures, looking glasses and other objects. (Patented by William Edward Gedge.)
AVELING, THOMAS - - -	61	7th Jan. 1863	Construction of traction engines.
AVERY, CYRUS - - -	397	14th Feb. 1863	Improvements in lever horse-power machines, the cog-gearing employed being applicable to other machines. (Patented by George Haseltine.)
AVERY, CYRUS - - -	1621	29th June 1863	Rotary engines.
AVERY, CYRUS - - -	1701	8th July 1863	Lever horse-power machines, the cog-gearing employed being applicable to other machines. (Patented by George Haseltine.)
AYCKBOURN, FREDERICK -	1816	20th July 1863	Air and water beds, pillows, bolsters and cushions.
AYCKBOURN, HUBERT - -	2930	21st Nov. 1863	The collection and cultivation of oyster spawn and brood. (Communicated by Eugene Kemmerer.)

B.

BABIN, FLORENT - - -	662	11th March 1863	Voltaic belts and bandages. (Patented by Richard Archibald Brooman.)
BADART, JEAN JOSEPH - -	456	19th Feb. 1863	Preparation of cotton seed cake.
BADART, JOSEPH - - -	1099	1st May 1863	Preparation of rape seed cake, linseed cake, poppy seed cake, niger seed cake, sesame seed cake, and ground nut cake.
BAGGS, ISHAM - - -	956	16th April 1863	Improvements in purifying and treating coal gas, sulphuretted hydrogen and in other gases containing sulphuretted hydrogen, and in obtaining sulphur, sulphuric and other acids in such treatment.
BAGGS, ISHAM - - -	2295	18th Sept. 1863	Means of protecting and preserving the hulls and bottoms of ships and vessels from fouling and corrosion.
BAGGS, ISHAM - - -	2644	26th Oct. 1863	Means of and apparatus for paralysing, capturing or killing fish, birds and other animals.
BAGNÈRES, ROSINE SAIGLAN -	3062	5th Dec. 1863	Improvements in washing textile fabrics and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)

Bag]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Bak

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BAGULEY, ROWLAND - -	398	14th Feb. 1863	Improvements in the construction of creels for warping machines and other machines to which creels are applied.
BAILEY, ISAAC - - -	2434	5th Oct. 1863	Machinery for combing wool and other fibrous materials. (Patented by William Henry Bailey.)
BAILEY, JOHN - - -	104	13th Jan. 1863	Certain improvements in telegraphic cables.
BAILEY, JOHN - - -	1812	20th July 1863	Apparatus for the prevention of boiler explosions.
BAILEY, JOHN - - -	2383	28th Sept. 1863	Barometers, gas regulators and other apparatuses for regulating and indicating the flow and pressure of liquids and fluids.
BAILEY, JOHN AYLESWORTH	3151	14th Dec. 1863	A new and improved mode or process of covering or insulating wire for telegraphic and other uses or purposes, with twine, cordage and other covering of a like character.
BAILEY, JOSEPH HENRY -	1154	8th May 1863	An improved mechanical movement for producing an impelled current of air for lamps and which may be used for other purposes. (Communicated by Francis Bernard De Keravenan.)
BAILEY, WILLIAM HENRY -	1812	20th July 1863	Apparatus for the prevention of boiler explosions.
BAILEY, WILLIAM HENRY -	2383	28th Sept. 1863	Barometers, gas regulators and other apparatuses for regulating and indicating the flow and pressure of liquids and fluids.
BAILEY, WILLIAM HENRY -	2434	5th Oct. 1863	Machinery for combing wool and other fibrous materials. (Partly communicated by Isaac Bailey.)
BAILLIE, ROBERT - - -	2041	17th Aug. 1863	Improvements in reefing or furling the sails of vessels and in the apparatus to be employed therein.
BAILLIE, ROBERT - - -	2593	22nd Oct. 1863	Construction of floating docks.
BAILLY, NICOLAS - - -	382	12th Feb. 1863	Bearing surfaces of shafts and other axles. (Patented by William Clark.)
BAILLY, NICOLAS - - -	2177	3rd Sept. 1863	Application of rolling friction to the axles and journals of running shafts and axletrees of machines and vehicles of all descriptions, for lessening the resistance to the motion. (Partly communicated by Charles Durand.)
BAINBRIDGE, EDWARD THOMAS	1825	21st July 1863	Ventilators.
BAKER, FRANCIS BRYAN -	2628	24th Oct. 1863	Apparatus used in dressing lace and other textile fabrics, and suitable also to the application of dyes or colouring matters thereto.
BAKER, JAMES - - -	2974	26th Nov. 1863	Compositions applicable to the coating of ships' bottoms.
BAKER, JOHN EDWARD - -	11	1st Jan. 1863	Construction of boots, shoes and other coverings for the feet.
BAKER, THOMAS HENRY -	2208	8th Sept. 1863	Improvements in treating excrementitious and sewage matters, and in the means or apparatus employed therein.
BAKER, VALENTINE - -	1360	30th May 1863	Ordnance.

[Bak]

ALPHABETICAL INDEX OF PATENTEES

[Bar

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BAKER, VALENTINE - -	2879	17th Nov. 1863	Improvements in breech-loading ordnance and in apparatus connected therewith.
BAKEWELL, FREDERICK COL- [LIER.	18	2nd Jan. 1863	Apparatus for burning oils and other inflammable fluids as fuel. (Communicated by Augustus Theodore Schmidt.)
BAKEWELL, FREDERICK COL- [LIER.	864	6th April 1863	Wicks for lamps. (Communicated by Joseph Hays Connelly.)
BALDWIN, THOMAS - -	907	10th April 1863	Improvements in superheating steam and in apparatus connected therewith.
BALL, WILLIAM - - -	268	29th Jan. 1863	Machinery employed in the manufacture of looped fabrics.
BALNY, AUGUSTE - - -	2900	19th Nov. 1863	An improved method of stopping horses by means of pincers to be attached to bits.
BALY, PRICE PRICHARD -	921	11th April 1863	Constructing breakwaters, piers, sea walls and other similar structures.
BAMFORD, ABRAHAM - -	16	2nd Jan. 1863	Looms for weaving.
BAMFORD, WILLIAM - -	2460	7th Oct. 1863	Washing apparatus. (Patented by George Whight.)
BAMLETT, ADAM CARLISLE -	874	7th April 1863	Reaping and mowing machines.
BANKS, JOHN HENRY - -	2161	1st Sept. 1863	Construction of benches or desks for schools, churches and other similar purposes.
BANNER, SAMUEL - - -	2486	10th Oct. 1863	An improved mode or method of storing petroleum and other like oils and spirits.
BANWELL, JOHN - - -	1514	17th June 1863	A combined machine for collecting and placing in rows, or collecting and elevating into a waggon or elsewhere, hay, corn or other agricultural produce.
BARANOWSKI, JEAN JOSEPH -	3178	16th Dec. 1863	Apparatus for working railway signals and for raising and lowering signal lamps. (Patented by Richard Archibald Brooman.)
BARBER, GEORGE HENRY -	1747	13th July 1863	An improved calendar or date denoting apparatus.
BARBER, GILL BRIDGES -	1006	22nd April 1863	Improvements in steam-boilers and apparatus connected therewith.
BARBER, HENRY - - -	498	24th Feb. 1863	Improvements in the manufacture and securing of cutlery handles, and machinery employed therein.
BARBER, HENRY - - -	3257	24th Dec. 1863	Cutlery handles.
BARBIER, ARISTIDE - -	1042	25th April 1863	Improvements in thrashing machines, part of which improvements are also applicable for hulling, decorticating, cleaning and polishing grains and seeds. (Patented by William Edward Newton.)
BARBIER, VICTOR - - -	3140	12th Dec. 1863	Steam-engines. (Patented by Richard Archibald Brooman.)
BARCLAY, ANDREW - - -	668	11th March 1863	Locomotive boring and winding engines.
BARCLAY, ANDREW - - -	669	11th March 1863	Improvements in traction engines and in apparatus for indicating the pressure of steam.
BARCLAY, ANDREW - - -	744	20th March 1863	Certain apparatus for injecting and ejecting fluids.
BARCLAY, ANDREW - - -	2263	15th Sept. 1863	Locomotive or other steam-engines.
BARCLAY, ANDREW - - -	2775	7th Nov. 1863	Certain apparatus for injecting and ejecting fluids.

[Bar]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Bar

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BARDOUX, LUCIEN - - -	1163	9th May 1863	Manufacture of paper stuff or pulp from certain vegetable substances. (Patented by William Edward Gedge.)
BARFF, FREDERICK SETTLE -	1389	3rd June 1863	An improved means of protecting, preserving and hardening surfaces of brick, cement, stone, stucco and other analogous substances, which invention is also applicable to the preservation of timber.
BARKER, DAVID - - -	1527	18th June 1863	Treatment and preservation of yeast.
BARKER, DAVID WRIGHT -	1977	11th Aug. 1863	Means or apparatus for actuating rotary shuttle boxes.
BARKER, GEORGE - - -	1188	12th May 1863	Grass mowing and reaping machines.
BARKER, GEORGE - - -	2849	14th Nov. 1863	Construction of syphons for taking off liquid sewerage, overflow of rivers and other like purposes.
BARKER, JOHN - - -	441	18th Feb. 1863	Portable and stationary crabs or cranes.
BARKER, ROBERT - - -	1353	29th May 1863	Manufacture of matches usually termed "Vesuvians."
BARLAND, MARGARET - -	1044	25th April 1863	An improved apparatus for milking cows. (Communicated by Thomas Barland.)
BARLAND, MARGARET - -	1082	29th April 1863	Improvements in apparatus for withdrawing milk from cows and other mammiferæ, and for conducting it when withdrawn to appropriate receivers. (Partly communicated by Thomas Barland.)
BARLAND, THOMAS - - -	1044	25th April 1863	An improved apparatus for milking cows. (Patented by Margaret Barland.)
BARLAND, THOMAS - - -	1082	29th April 1863	Improvements in apparatus for withdrawing milk from cows and other mammiferæ, and for conducting it when withdrawn to appropriate receivers. (Patented by Margaret Barland and Edward Henry Cradock Monckton.)
BARLOW, EDWARD - - -	354	9th Feb. 1863	Certain improvements in carding-engines. (Communicated by John Lees Wrigley.)
BARLOW, EDWARD - - -	1293	23rd May 1863	Lap machines for preparing cotton and other fibrous substances.
BARLOW, EDWARD - - -	1430	9th June 1863	Certain improvements in machinery for grinding card teeth.
BARLOW, EDWARD - - -	2915	20th Nov. 1863	Machinery for ginning cotton and for opening cotton and other fibrous substances.
BARLOW, HENRY BERNOULLI -	182	21st Jan. 1863	Certain improvements in jacquard machines. (Communicated by Hercules Erba.)
BARLOW, HENRY BERNOULLI -	243	28th Jan. 1863	Improvements in preserving timber and in apparatus employed therein. (Communicated by Etienne Marechal.)
BARLOW, HENRY BERNOULLI -	459	20th Feb. 1863	Certain improvements in weaving and in the machinery employed therein. (Communicated by Edme Hippolyte Junot.)
BARLOW, HENRY BERNOULLI -	680	13th March 1863	Certain improvements in looms for weaving. (Communicated by Alexander Frey.)
BARLOW, HENRY BERNOULLI -	1002	22nd April 1863	Improvements in shoes, boots and other coverings for the feet. (Communicated by Jesse Follett.)
BARLOW, HENRY BERNOULLI -	1494	15th June 1863	Machinery for opening and cleaning cotton and other fibrous substances. (Communicated by John Edo Van Winkle.)

[Bar]

ALPHABETICAL INDEX OF PATENTEES

[Bar]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BARLOW, HENRY BERNOULLI-	2570	20th Oct. 1863	Shoes, boots and other coverings for the feet. (Communicated by Jesse Follett.)
BARLOW, HENRY BERNOULLI-	2697	31st Oct. 1863	Machinery employed in the manufacture of wool and hair felting. (Communicated by Jesse Albert Locke.)
BARLOW, HENRY BERNOULLI-	2669	26th Nov. 1863	Certain improvements in looms for weaving. (Communicated by Messieurs Auguste Vidal and Sons, and Messieurs Blaquière, Brothers.)
BARNARD, CHARLES - -	1248	19th May 1863	Lawn mowing and rolling machines.
BARNARD, CHARLES, JR. - -	1248	19th May 1863	Lawn mowing and rolling machines.
BARNARD, GODFREY - -	1248	19th May 1863	Lawn mowing and rolling machines.
BARNARD, WILLIAM BRAINERD	313	4th Feb. 1863	Mode of uniting metallic surfaces. (Patented by George Haseltine.)
BARNES, JOHN - - -	1737	11th July 1863	A new machine for clipping off connecting threads in the manufacture of lace.
BARNES, WILLIAM CHARLES -	296	2nd Feb. 1863	Means or apparatus for shaping, rolling or compressing metal.
BARNES, WILLIAM LAWSON, [M.A.]	1851	24th July 1863	An improved method of breaking the speed of and stopping railway trains or other locomotive wheeled carriage or carriages, at the same time signalling to the driver, or for using signal and break separately.
BARR, DAVID - - -	2449	7th Oct. 1863	Apparatus for regulating and working window-blinds.
BARRACLOUGH, THOMAS [CRITCHLEY.]	130	15th Jan. 1863	Apparatus for cutting metallic tubes or pipes, or pipes or tubes composed of other indurate substances. (Communicated by George Henry Sanborn.)
BARRACLOUGH, THOMAS [CRITCHLEY.]	131	15th Jan. 1863	An improved alarm apparatus which may be employed in connection with locks or other fastenings. (Communicated by George Henry Sanborn.)
BARRACLOUGH, THOMAS [CRITCHLEY.]	2766	7th Nov. 1863	Certain improvements in looms for weaving. (Communicated by Wilhelm Gminder.)
BARRAL, JEAN AUGUSTIN -	2731	4th Nov. 1863	Certain improvements in the manufacture of manure.
BARRAULT, EMILE - -	53	7th Jan. 1863	Manufacture of capsules. (Patented by John Neale.)
BARRETT, ALFRED - -	1377	2nd June 1863	Valves and apparatus for regulating the speed of steam-engines. (Partly communicated by Frederic Perry.)
BARRETT, ALFRED - -	1671	4th July 1863	Arrangement and construction of fixed and portable combined thrashing-machines.
BARRETT, GEORGE ALLAM -	1377	2nd June 1863	Valves and apparatus for regulating the speed of steam-engines. (Partly communicated by Frederic Perry.)
BARRETT, GEORGE ALLAM -	1671	4th July 1863	Arrangement and construction of fixed and portable combined thrashing-machines.
BARRETT, THOMAS ALBERT -	1870	29th July 1863	Window frames and sashes.
BARRON, HENRY STRACEY -	1474	12th June 1863	Improvements in steam fire-engines, parts of which improvements are applicable to steam-boilers and to pumps generally.
BARTHOLOMEW, GEORGE -	1685	7th July 1863	Improvements in shoes for the feet of horses and other animals, and in the means of connecting them.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BARTLETT, SAMUEL JOHN -	1105	2nd May 1863	Apparatus for straining and drawing off liquids.
BARTLETT, SAMUEL JOHN -	2791	10th Nov. 1863	Improvements in taps.
BARTON, JOSEPH - - -	1745	13th July 1863	An improved guard or fence for coal, iron, stone or other pits, warehouse or other lifts, sack holes or other places requiring a guard or fence.
BASFORD, WILLIAM - - -	1693	8th July 1863	Apparatus for generating and purifying gas made from coal or other bituminous substances.
BASS, ISAAC GRAY - - -	1487	13th June 1863	Manufacture of nails and spikes.
BASS, WILLIAM - - -	1487	13th June 1863	Manufacture of nails and spikes.
BASSET, FREDERICK WILLIAM	897	9th April 1863	Improvements in preventing the fouling of ships' bottoms and in cleansing the same when fouled.
BASSET, FREDERICK WILLIAM	2099	25th Aug. 1863	Preserving animal substances and animal and other substances used for food.
BASTOW, ARTHUR - - -	1330	27th May 1863	Looms for weaving.
BATCHELOUR, WILLIAM - -	2445	6th Oct. 1863	An improved apparatus for moulding and modelling palates, teeth and gums for dental purposes.
BATE, THOMAS - - -	3075	7th Dec. 1863	Improvements in receptacles for containing biscuits, fruits and other articles.
BATEMAN, DANIEL - - -	2982	27th Nov. 1863	Sewing-machines.
BATEMAN, HYDE - - -	2316	19th Sept. 1863	An improved construction of rotary engine.
BATEMAN, JAMES - - -	2982	27th Nov. 1863	Sewing-machines.
BATEMAN, SAMUEL - - -	575	28th Feb. 1863	Improvements in the manufacture of wire rope and cordage, and in the machinery employed therein.
BATEMAN, SAMUEL - - -	2718	3rd Nov. 1863	Machinery for combing wool and other fibrous substances.
BATES, BENJAMIN FRANKLIN -	331	6th Feb. 1863	Improvements in cannon and in projectiles to be used therewith. (Partly communicated by Charles Macy.)
BATES, STEPHEN - - -	1361	30th May 1863	Carriages used in machines employed in the manufacture of lace or other fabrics.
BATH, JOHN PARKER - - -	137	15th Jan. 1863	Improvements applicable to omnibuses and other like carriages to adapt them for use on rail or tram roads as well as common highways.
BATHO, WILLIAM FOTHERGILL	3216	21st Dec. 1863	Improvements in machinery or apparatus for rolling roads, which is also applicable to traction engines and other similar purposes.
BATT, HENRY - - -	2091	24th Aug. 1863	Improvements in roughing horses without taking off the shoe.
BATT, RICHARD - - -	2194	5th Sept. 1863	Paper making machinery.
BATT, RICHARD - - -	2767	7th Nov. 1863	Improved arrangement of paper making machinery.
BATTCKOCK, CHARLES - - -	2260	15th Sept. 1863	Improvements in cigar lighters and fusee matches, part of said improvements being applicable also to vestas and matches, wax tapers and candles.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BAUD, PIERRE CELESTIN VIC- [TOR.	2587	21st Oct. 1863	Improvements in treating ligneous substances, in separating and recovering the fibrous portions therefrom, in preparing, bleaching and sizing the same, and in machinery employed therein. (Patented by Richard Archibald Brooman.)
BAUDOIN, FLORIMOND - - -	2777	7th Nov. 1863	Lamps for burning oils. (Patented by Henry Wickens.)
BAUDRIT, THEODORE AUGUSTE	1749	13th July 1863	Apparatus for suspending chandeliers, gas-lights and other weights. (Patented by Richard Archibald Brooman.)
BAULCH, CHARLES - - -	1856	3rd July 1863	Manufacture of boots and shoes.
BAUX, JEAN BAPTISTE - - -	2819	12th Nov. 1863	Improved process and apparatus for amalgamating the precious metals. (Patented by William Edward Gedge.)
BAWDEN, PETER - - -	2944	23rd Nov. 1863	Machinery for making bricks.
BAXTER, CHARLES FRANCIS -	1341	28th May 1863	A new and useful hollow elastic stopper for bottles, jugs and other similar vessels.
BAY, ADOLPH - - -	1798	17th July 1863	An improvement in gas-burners. (Patented by Emile Alcan.)
BAYELT, GUSTAVE MAILLARD [DE.	2334	22nd Sept. 1863	An improved method of compounding by agglomeration, artificial fuel.
BAYLEY, HENRY - - -	3286	29th Dec. 1863	Cotton gins.
BAYLIS, THOMAS HUTCHINSON	1920	4th Aug. 1863	Hawse pipes, mooring pipes and deck chain pipes.
BAYLIS, WILLIAM - - -	403	14th Feb. 1863	Tongs or forceps for grasping articles out of reach of the hand.
BAYNES, ROBERT - - -	3221	21st Dec. 1863	Apparatus for darning stockings and other fabrics.
BAZIN, ERNEST - - -	187	21st Jan. 1863	An improved log.
BEACH, HENRY B. - - -	3103	9th Dec. 1863	An invention, firstly, for casting steam cylinders of steam-engines in the form of a segment of a cylindrical ring or circle, and secondly, for the machine for boring them truly cylindrical and retaining the line of the bore on the curve of a true circle. (Patented by William Henry Cole.)
BEARCE, HORACE - - -	3242	23rd Dec. 1863	Shields or tips for boots and shoes. (Communicated by John Henry Johnson.)
BEARCE, HORACE - - -	3256	23rd Dec. 1863	Shields or tips for boots and shoes. (Patented by John Henry Johnson.)
BEARDSLEE, FREDERICK ED- [WARDS.	30	3rd Jan. 1863	An improved method of firing or discharging cannon and other fire-arms, a part of which invention is applicable generally to the firing of charges of powder. (Patented by William Edward Newton.)
BEARDSLEE, GEORGE WASH- [INGTON.	30	3rd Jan. 1863	An improved method of firing or discharging cannon and other fire-arms, a part of which invention is applicable generally to the firing of charges of powder. (Patented by William Edward Newton.)
BEARDSLEE, GEORGE WASH- [INGTON.	41	6th Jan. 1863	Magneto-electric telegraphs. (Patented by William Edward Newton.)
BEARE, HENRY - - -	1058	27th April 1863	Improvements in machines for thrashing out corn from its straw, part of which is applicable for combining the straw.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BEAUMONT, ANDRÉ ALEXANDRE	2175	3rd Sept. 1863	A new or improved engine for raising liquids.
BEAUMONT, JOSEPH - -	1247	18th May 1863	Condensing machines for working yarns of wool and other fibrous substances.
BEAUREGARD, FELIX ALEX- [ANDRÉ TESTUD DE.	1209	13th May 1863	Improvements in the extraction of hydro-carburets from minerals, in the distillation thereof, and in apparatus employed therein. (Patented by Richard Archibald Brooman.)
BEBBINGTON, GEORGE - -	2148	31st Aug. 1863	Certain improvements in means to be employed for securing the ends of bands in packing "bale goods," and in machinery for manufacturing "rivets" to be employed for the purpose, and also in apparatus for forming apertures in the aforesaid bands or hoops.
BECKETT, SAMUEL - -	3254	23rd Dec. 1863	Lathes for turning.
BEDSON, GEORGE - - -	1470	12th June 1863	Cupolas and blast furnaces.
BEDSON, GEORGE - - -	2109	26th Aug. 1863	Pointing wire rods or wire in order to facilitate their introduction into draw plates.
BESSEY, THOMAS - - -	1134	6th May 1863	Construction of boxes or cases for carrying and packing bottles.
BEGUIN, JEAN FRANÇOIS FRE- [DERIC.	2179	3rd Sept. 1863	An improved mode of attaching horses to carriages or other vehicles and apparatus therefor. (Patented by Henri Adrien Bonneville.)
BEHRENS, HENRY - - -	990	21st April 1863	Marine steam-engine governors. (Patented by Mark Runkel.)
BELCHER, CHARLES - - -	1370	1st June 1863	Improvements in cutting and transplanting turf and in apparatus to be employed therein, which apparatus is also applicable to the extraction of weeds, and to the planting of seeds, roots, sets or plants.
BELLEY, GEORGE PARSONS -	705	16th March 1863	Discharging projectiles below the water line of navigable vessels and other structures.
BELL, ARCHIBALD HAMILTON	829	31st March 1863	An improved mode of constructing the armour of vessels of war.
BELL, JAMES - - - -	2408	1st Oct. 1863	Couplings for railway carriages.
BELL, JOHN - - - -	168	20th Jan. 1863	Certain improvements in the construction of carding-engines.
BELL, RICHARD - - - -	466	20th Feb. 1863	Armour plating or protecting ships and vessels.
BELL, ROBERT - - - -	2123	28th Aug. 1863	Measuring-apparatus for looms.
BELL, ROBERT - - - -	3305	31st Dec. 1863	Manufacture of ornamental fabrics.
BELL, THOMAS - - - -	2255	14th Sept. 1863	Apparatus for distilling shale or other bituminous minerals.
BELL, THOMAS - - - -	2402	1st Oct. 1863	A new mode of manufacturing bricks and tiles.
BELL, VALENTINE GRÈME -	829	31st March 1863	An improved mode of constructing the armour of vessels of war.
BENJAMIN, HENRY - - -	3308	31st Dec. 1863	Breech-loading fire-arms.
BENNDORF, FRIEDERICH WIL- [LIAM.	469	20th Feb. 1863	Improvements in governors or apparatus for regulating the speed of steam-engines or other engines for driving machinery.
BENNETT, FREDERICK - -	1053	27th April 1863	Improved method of condensing lead and other metallic fumes and vapours from furnaces.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BENNETT, HENRY - - -	1242	18th May 1863	Improved apparatus or mechanism to be used for facilitating the puddling of iron.
BENNETT, THOMAS - - -	286	31st Jan. 1863	Improved arrangements for obtaining pictorial back-grounds, fore-grounds and perspectives, when taking photographic portraits or sun pictures.
BENSON, JOHN SOLMONS -	1485	13th June 1863	An improved construction of removable head for casks, applicable to the closing of other vessels.
BENSON, WILLIAM - - -	2090	22nd Aug. 1863	Preparing and spinning wool and other similar fibres.
BENTALL, EDWARD HAMMOND	2088	15th Aug. 1863	Improved machinery for thrashing corn and other grain or seeds.
BENTLEY, JOHN - - -	468	20th Feb. 1863	Looms for weaving.
BERENTS, THEODORE - -	947	15th April 1863	Construction of gas-burners. (Patented by Henri Adrien Bonneville.)
BERGER, CHARLES - - -	332	6th Feb. 1863	An improved boring bench for gun barrels. (Patented by Alexis Heintzmann and Theodore Anthony Rochussen.)
BERGOUHNIUX, JEAN BAP- [TISTE PIERRE CAMILLE.	186	21st Jan. 1863	Improvements in desiccating and in preserving matters from decay. (Patented by William Clark.)
BERGUE, CHARLES DE - -	1723	10th July 1863	Improvements in piles for foundations and in piers for bridges and other buildings or structures.
BERGUE, MIGUEL DE - -	2461	7th Oct. 1863	Permanent way of railways. (Patented by John Henry Johnson.)
BERNARD, PETER OWEN -	3114	10th Dec. 1863	Improvements in obtaining purified or refined oils, and in obtaining oil cakes from cotton seed and other vegetable substances, also in refining or purifying cod liver oil.
BERNARDIN, LOUIS - - -	2220	9th Sept. 1863	Improvements in the manufacture of chenille and in the machinery or apparatus employed therein. (Patented by Edward Thomas Hughes.)
BERRISFORD, SAMUEL - -	2538	17th Oct. 1863	Certain improvements in looms for weaving.
BERRY, GEORGE - - -	934	14th April 1863	Locks.
BERRY, JOHN - - -	2795	10th Nov. 1863	Apparatus for grinding cards used in carding-engines.
BERTLING, LOUIS - - -	1111	4th May 1863	Improvements in the production of show tablets, advertisement tablets, name plates, architectural facings and decorations, and other ornamental decorative and inscriptive articles.
BERTRAM, BENJAMIN BERAL-	1837	22nd July 1863	An improved advertising medium.
BESLAY, CHARLES - - -	1836	22nd July 1863	Improvements in making all woven and thready fabrics waterproof, and in finishing or surfacing fabrics generally. (Communicated by Etienne Guillaume.)
BESSEMER, HENRY - - -	37	5th Jan. 1863	Improvements in the construction and mode of working apparatus to be employed in pressing, moulding, shaping, embossing, crushing, shearing and cutting metallic and other substances.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BESSEMER, HENRY - - -	114	13th Jan. 1863	Improvements in the manufacture and treatment of malleable iron and steel, and in furnaces, machinery and apparatus employed in such manufacture.
BESSEMER, HENRY - - -	1439	9th June 1863	Construction of and mode of working hydrostatic presses and hydraulic apparatus.
BESSEMER, HENRY - - -	2744	5th Nov. 1863	Manufacture of railway bars.
BESSEMER, HENRY - - -	2746	5th Nov. 1863	Improvements in the manufacture of malleable iron and steel, and in the apparatus employed in such manufacture.
BESSUNGER, THEODOR - -	2698	31st Oct. 1863	Manufacture of show cards, window tickets and ornamental labels, as advertising mediums.
BESTWICK, WILLIAM - - -	2942	23rd Nov. 1863	Braiding machines.
BETHUNE, DONALD - - -	3051	4th Dec. 1863	Working railway breaks. (Patented by Richard Archibald Brooman.)
BETTELEY, JOSEPH - - -	2880	17th Nov. 1863	Sheathing ships and other vessels.
BETTLE, PHILIP - - -	2824	12th Nov. 1863	Improvements in pins, brooches, buckles and other ornaments to be applied to various articles of wearing-apparel.
BETRIDGE, JOHN - - -	1145	7th May 1863	Ornamentation of papier mâché or other japanned wares, wood, ivory or other similar materials.
BETTS, WILLIAM - - -	325	5th Feb. 1863	Apparatus for applying metallic capsules to bottles.
BETTS, WILLIAM - - -	2623	24th Oct. 1863	Improvements in the manufacture of metallic capsules for bottles and similar vessels, and in the apparatus or means for applying or fixing such capsules thereon.
BEVAN, EDWARD - - -	2966	25th Nov. 1863	The manufacture and application of gases to aid in the lighting of railway carriages separately or conjointly, omnibuses or other carriages, ships, steam boats or other such like vessels, lighthouses or other places where portable gas apparatus may be required.
BEVAN, EDWARD - - -	2990	28th Nov. 1863	Improvements in and applicable to watches to obtain or produce independent centre seconds.
BEWLEY, RICHARD, JR. - -	2524	15th Oct. 1863	Wrenches.
BEYER, CHARLES - - -	1038	25th April 1863	Safety valves. (Communicated by Johann Andreas Schubert.)
BEYER, FRIEDRICH - - -	1021	24th April 1863	Improvements in the manufacture of blue colouring matter and also of violet colouring matter. (Patented by Philip Passavant.)
BIBBY, RICHARD EDWIN - -	1908	1st Aug. 1863	An improved fireproof cement which may be employed for covering walls, ceilings and floors, and also applicable in the manufacture of fire bricks, crucibles, retorts, melting pots, and for other purposes where fire-resisting properties are required.
BICKERTON, RICHARD - - -	751	20th March 1863	Reaping or mowing machines.
BICKERTON, RICHARD - - -	2339	22nd Sept. 1863	Reaping or mowing machines.
BICKERTON, RICHARD - - -	2695	30th Oct. 1863	Reaping and mowing machines.
BICKFORD, JOHN SOLOMON -	1297	23rd May 1863	A certain new manufacture for firing explosive compounds.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BIDDELL, GEORGE ARTHUR -	120	14th Jan. 1863	Machines for pulping turnips and other vegetable substances.
BIDDELL, GEORGE ARTHUR -	756	21st March 1863	Improvements in locomotives usually called traction engines, to be used on common roads.
BIELEFELD, CHARLES FREDERICK.	1158	8th May 1863	Manufacture of sheets, slabs and other articles when fibrous materials are employed.
BILLARD, EDWARD - - -	379	12th Feb. 1863	An improved plastic compound for dental purposes, to be used instead of wax, gutta-percha or resinous gums in taking the impression of the mouth. (Patented by Frederick Oppenheim.)
BILLINGS, GEORGE WHITEFIELD.	2258	14th Sept. 1863	An improved method of preparing the fibres of hemp, flax and other vegetable materials, for manufacturing purposes.
BILLINGSLEY, CHARLES - -	462	20th Feb. 1863	Saddlery, harness, driving straps and similar articles.
BILLUPS, JONATHAN EDWIN -	3276	28th Dec. 1863	Permanent way of railways.
BINGER, JAMES MARTIN -	198	22nd Jan. 1863	An improved paste or composition to cover the rollers used by letter press printers.
BINGHAM, ARTHUR - - -	3027	2nd Dec. 1863	Machinery or apparatus for making envelopes and other similar purposes.
BINNEY, EDWARD WILLIAM -	609	4th March 1863	Pressure and pump lamps. (Communicated by Isaac Van Bunchoten.)
BINNEY, EDWARD WILLIAM -	610	4th March 1863	An improved lamp burner. (Communicated by Samuel Adlam, jr.)
BINNS, JOSEPH PICKLES - -	2842	14th Nov. 1863	Sewing-machines.
BIRKBECK, GEORGE HENRY -	385	13th Feb. 1863	Processes or means employed for separating or extracting silver or other metals from lead. (Communicated by M. Clement Roswag.)
BIENBAUM, BERNARD - - -	1854	24th July 1863	Gaiters and leggings.
BISCHOF, GUSTAV, JR. - -	815	28th March 1863	Improvements in the manufacture of aniline, naphthylamine and other analogous bodies and in apparatus connected therewith, which apparatus is also applicable to obtaining finely divided metallic iron for other purposes.
BISHOP, JOHN - - -	1248	19th May 1863	Lawn mowing and rolling machines.
BISSELL, THOMAS - - -	581	2nd March 1863	Powder chargers.
BISSELL, TITUS LUCRETIVS -	1100	2nd May 1863	An improved apparatus for charging breech-loading cartridges.
BLACKBURN, BEWICKE - - -	2740	5th Nov. 1863	An improved coupling or buckle.
BLACKBURN, ROBERT - - -	1482	13th June 1863	Traction engines.
BLACKTIN, CHARLES - - -	35	5th Jan. 1863	Improvements in means or apparatus for saving or preserving money, papers or other valuable property at sea in case of shipwreck. (Patented by Henry Blacktin.)
BLACKTIN, HENRY - - -	35	5th Jan. 1863	Improvements in means or apparatus for saving or preserving money, papers or other valuable property at sea in case of shipwreck. (Communicated by Charles Blacktin.)
BLACKWELL, SAMUEL - - -	176	20th Jan. 1863	Apparatus for applying water or other fluid to the legs and other parts of horses and other animals.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BLACKWOOD, JOHN - - -	200	22nd Jan. 1863	Machinery for drying yarns or threads.
BLACKWOOD, WILLIAM - - -	200	22nd Jan. 1863	Machinery for drying yarns or threads.
BLAIN, JAMES - - -	856	4th April 1863	Finish of threads and yarns.
BLAIR, THOMAS SHOENBERGER	2525	15th Oct. 1863	Manufacture of rails for railways. (Patented by Peter Lesley.)
BLAKE, ALFRED - - -	2646	26th Oct. 1863	An improved refrigerator for cooling worts for brewing, or other liquids requiring cooling, and for improving brewers' refrigerators now in use.
BLAKE, DAVID - - -	2118	26th Aug. 1863	Improvements in shaping and punching metallic articles, and in the machinery or apparatus to be employed therein. (Communicated by Levi Dodge.)
BLAKE, GEORGE WILLIAM -	2383	28th Sept. 1863	Barometers, gas regulators and other apparatuses for regulating and indicating the flow and pressure of liquids and fluids.
BLAKE, GIDEON - - -	273	29th Jan. 1863	Apparatus for heating and warming.
BLAKE, JOHN - - -	1638	1st July 1863	Improvements in apparatus for reducing and regulating the pressure or quantity of steam and in discharging the water of condensed steam from cylinders, pipes and other vessels.
BLAKE, STEPHEN - - -	1393	4th June 1863	Construction of flour and meal mills.
BLAKE, WILLIAM - - -	798	26th March 1863	Manufacture of labels for luggage and other articles.
BLAKELEY, THOMAS - - -	333	6th Feb. 1863	An improved lead and stone pencil sharpener.
BLAKELY, ALEXANDER THEOPHILUS.	305	3rd Feb. 1863	Projectiles for ordnance.
BLAKELY, THEOPHILUS ALEXANDER.	1284	22nd May 1863	Ordnance.
BLAKELY, THEOPHILUS ALEXANDER.	1286	22nd May 1863	A new method of rifling guns and of forming projectiles to correspond therewith.
BLAKELY, THEOPHILUS ALEXANDER.	3087	8th Dec. 1863	Improvements in projectiles for ordnance and in loading and firing ordnance.
BLAKELY, THEOPHILUS ALEXANDER.	3088	8th Dec. 1863	Metallic packings.
BLAKELY, THEOPHILUS ALEXANDER.	3179	16th Dec 1863	Construction of cannon and other ordnance.
BLANC, CLAUDE - - -	961	20th April 1863	Improvements in apparatus for the purpose of using air and steam as motive-power.
BLANCHARD, LUCIEN HENRY -	761	21st March 1863	Improvements in the separation or obtaining of ammonia from azoted matters in the preparation of manure. (Patented by William Clark.)
BLANCHON, FRANÇOIS ARMAND	2466	8th Oct. 1863	Shooting toy fuses, toy rockets or other similar toy missiles, by means of toy pistols or other toy fire-arms.
BLAQUIÈRE BROTHERS - - -	2969	26th Nov. 1863	Certain improvements in looms for weaving. (Patented by Henry Bernoulli Barlow.)
BLAYLOCK, JOHN - - -	2881	18th Nov. 1863	Improvements in and applicable to moveable platforms for railway stations.
BLOMLEY, RICHARD - - -	16	2nd Jan. 1863	Looms for weaving.
BLONDEL, JACQUES - - -	1942	6th Aug. 1863	Ovens. (Patented by William Clark.)
BLOUIN, ALFRED - - -	812	28th March 1863	An improved axle-tree with linked levers for lifting.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BLUNDON, EDWARD HENRY -	3004	30th Nov. 1863	Construction of letter, tourist, despatch and other similar bags or receptacles.
BLUNDON, JOHN EDWARD -	3004	30th Nov. 1863	Construction of letter, tourist, despatch and other similar bags or receptacles.
BLY, JOHN HENRY - -	443	18th Feb. 1863	Cooking-stoves.
BOALER, WILLIAM - -	700	14th March 1863	Preparation of coloring matters for dyeing and printing. (Communicated by Robert Hodgson Gratrix.)
BOALER, WILLIAM - -	1167	9th May 1863	An improved dryer fabric for paper making.
BOCCIUS, GOTTLIEB - -	1610	26th June 1863	An improved composition suitable for the manufacture of candles and other like articles, and of pomatum, and an improved wick for burning with such composition.
BODINGTON, ROBERT - -	260	28th Jan. 1863	Reaping and mowing machines. (Patented by Henry Crichley.)
BODMER, LOUIS RUDOLPH -	1784	16th July 1863	The manufacture of a new product from peat and peat tar. (Communicated by Edmund Hess.)
BODMER, LOUIS RUDOLPH -	1989	12th Aug. 1863	An improved mode and apparatus for dressing and finishing, and for imparting lustre to yarn and thread made of silk, cotton and other fibrous substances. (Communicated by Emanuel Bürgy and Louis Guillemin.)
BOEDDINGHAUS, JULIUS -	1885	30th July 1863	Means or apparatus for the production of printed or parti-coloured yarns.
BOESIGER, JOHN VICTOR -	3271	26th Dec. 1863	Sewing-machines.
BOËT, EVARISTE CHAMONIN -	1157	8th May 1863	Tanning hides and skins. (Communicated by Jean Baptiste Vanrymenant.)
BOIGUES, EMILE GUILLAUME -	708	16th March 1863	Manufacture of iron and steel. (Patented by William Edward Newton.)
BOISSERANE, GADUEL - -	1697	8th July 1863	A new mode of roofing houses, buildings and other structures. (Patented by Peter Armand Lecomte de Fontaine Moreau.)
BOLETTE, JEAN SEBASTIEN -	2171	2nd Sept. 1863	A new method of and apparatus for feeding wool and other textile and filamentous substances into carding, combing and other machines for treating such substances. (Patented by Emile Alcan.)
BOLTON, ALFRED SOHIER -	22	2nd Jan. 1863	Manufacture of wire.
BOLTON, CHARLES - -	3209	19th Dec. 1863	Apparatus for producing optical illusions, which may be used for dramatic and other entertainments.
BOND, JAMES - - -	2337	22nd Sept. 1863	Improvements in brick and tile making machinery, applicable also to machinery for manufacturing other articles from plastic materials.
BOND, JOHN - - -	2337	22nd Sept. 1863	Improvements in brick and tile making machinery, applicable also to machinery for manufacturing other articles from plastic materials.
BOND, WILLIAM - - -	1708	9th July 1863	Temples for looms.

Bon]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Bon

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BONELLI, GAETANO - -	768	24th March 1863	Improvements in the arrangement and construction of apparatus for transmitting electric currents and signals for telegraphic purposes. (Patented by Henry Cook.)
BONELLI, GAETANO - -	2063	19th Aug. 1863	An improved mode of and apparatus for producing, by the aid of photography, optical illusions of moving animals and bodies.
BONFIELD, BENJAMIN - -	1679	6th July 1863	Stoppers for bottles.
BONFILS, PAUL - - -	1129	6th May 1863	An improved toy. (Patented by William Edward Gedge.)
BONNALL, JOHN - - -	1726	10th July 1863	Improvements in traction engines and in apparatus for ploughing and tilling land by steam and other power, part of which improvements is also applicable to driving or giving motion to machinery.
BONNARD, JEAN JOSEPH - -	2558	19th Oct. 1863	Improvements in separating ores from their gangues and in apparatus for the same. (Patented by William Clark.)
BONNAZ, ANTOINE - - -	2544	17th Oct. 1863	Sewing and embroidering machines. (Patented by William Clark.)
BONNET, JOSEPH IMBERT [PROSPER.	1915	3rd Aug. 1863	Lamps.
BONNEVAL, EDMOND MARQUIS [DE RUFFO.	1027	24th April 1863	A filtering apparatus for treating by pressure oils, syrups and all sorts of liquids susceptible of filtering. (Patented by John Henry Johnson.)
BONNEVILLE, HENRI ADRIEN	170	20th Jan. 1863	Manufacture of clocks. (Communicated by Tony Pocachard.)
BONNEVILLE, HENRI ADRIEN	171	20th Jan. 1863	Coloring, bronzing and preserving iron and steel. (Communicated by Claude Joseph Thirault.)
BONNEVILLE, HENRI ADRIEN	262	29th Jan. 1863	Construction of granaries. (Communicated by Louis Jean Gustave de Connick.)
BONNEVILLE, HENRI ADRIEN	648	9th March 1863	A new aromatic vinegar for removing stains from cloth and other materials. (Communicated by Philippe Prudon and Edouard Cari Mantrand.)
BONNEVILLE, HENRI ADRIEN	947	15th April 1863	Construction of gas-burners. (Communicated by Theodore Berents.)
BONNEVILLE, HENRI ADRIEN	1309	25th May 1863	Construction of carriages. (Communicated by Charles William Hine Sargent.)
BONNEVILLE, HENRI ADRIEN	1536	19th June 1863	Machinery for the manufacture of bolts and rivets. (Communicated by Jacques Victor Gauthier.)
BONNEVILLE, HENRI ADRIEN	1666	4th July 1863	Steam-engines. (Communicated by Auguste Ghilain and Edouard Poncelet.)
BONNEVILLE, HENRI ADRIEN	1667	4th July 1863	An improved machine constructed on self-moving principles for obtaining motive-power. (Communicated by Jules François Duhamel.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BONNEVILLE, HENRI ADRIEN	1668	4th July 1863	Improvements in the manufacture of telegraphic wires and in the apparatus connected therewith. (Communicated by <i>Gustave Eugène Michel Gerard</i> .)
BONNEVILLE, HENRI ADRIEN	1752	13th July 1863	Certain descriptions of breech-loading fire-arms. (Communicated by <i>Adolphe Jean Victor Marcet</i> .)
BONNEVILLE, HENRI ADRIEN	1880	29th July 1863	An improved self-acting "flushing" apparatus. (Communicated by <i>Louis Melotte</i> .)
BONNEVILLE, HENRI ADRIEN	2038	17th Aug. 1863	Engraving. (Communicated by <i>Armand Mauchain</i> .)
BONNEVILLE, HENRI ADRIEN	2039	17th Aug. 1863	Processes and preparations employed in spinning wool. (Communicated by <i>Edmund Lepointeur</i> .)
BONNEVILLE, HENRI ADRIEN	2179	3rd Sept. 1863	An improved mode of attaching horses to carriages or other vehicles, and apparatus therefor. (Communicated by <i>Jean François Frederic Beguin</i> .)
BONNEVILLE, HENRI ADRIEN	2180	3rd Sept. 1863	An improved machine for glossing and glazing all kinds of threads. (Communicated by <i>Alfred Julien Thiriez, Edouard Julien Thiriez and Victor Charles Julien Thiriez</i> .)
BONNEVILLE, HENRI ADRIEN	2360	24th Sept. 1863	Horse collars. (Communicated by <i>Toussaint Landrin</i> .)
BONNEVILLE, HENRI ADRIEN	2361	24th Sept. 1863	Joining leather. (Communicated by <i>Toussaint Landrin</i> .)
BONNEVILLE, HENRI ADRIEN	2403	1st Oct. 1863	Railway and other breaks. (Communicated by <i>Isidore Alexandre Moineau</i> .)
BONNEVILLE, HENRI ADRIEN	2522	14th Oct. 1863	An improved apparatus for cleaning ships' hulls. (Communicated by <i>François Capponi</i> .)
BONNEVILLE, HENRI ADRIEN	2666	28th Oct. 1863	An improvement in clasps for portemonnaies, pocket books, bags and other like uses. (Communicated by <i>Paul Claparede</i> .)
BONNEVILLE, HENRI ADRIEN	2792	10th Nov. 1863	An improved cowl or chimney pot. (Communicated by <i>Yves Marie Pouliquen</i> .)
BONNEVILLE, HENRI ADRIEN	2926	20th Nov. 1863	Improvements in preserving grain, flour and other similar substances, and in the apparatus connected therewith. (Communicated by <i>Alphonse Louvel</i> .)
BONNEVILLE, HENRI ADRIEN	3059	5th Dec. 1863	Fret saws. (Communicated by <i>Louis Pierre Nouvel the younger</i> .)
BONNEVILLE, HENRI ADRIEN	3197	18th Dec. 1863	Letter boxes. (Communicated by <i>Emmanuel Neriny</i> .)
BONNEVILLE, HENRI ADRIEN	3198	18th Dec. 1863	Manufacture of socks. (Communicated by <i>Pierre Dominique Lacroix</i> .)
BONOMI, IGNATIUS - - -	2428	3rd Oct. 1863	Construction of arches and other like structures.
BOORAEM, JOHN VAN VOORST	2363	25th Sept. 1863	An improved joint for the tubes of surface condensers. (Patented by <i>Alfred Vincent Newton</i> .)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOOTH, EDWARD - -	219	24th Jan. 1863	Certain improvements in the mode of fixing coloring matter on cotton, silk, wool and other fibres and materials, and certain improvements in finishing such like and other textile fabrics and yarns.
BOOTH, GEORGE - -	219	24th Jan. 1863	Certain improvements in the mode of fixing coloring matter on cotton, silk, wool and other fibres and materials, and certain improvements in finishing such like and other textile fabrics and yarns.
BOOTH, HENRY - - -	869	6th April 1863	Machinery for carding cotton and other fibrous substances.
BOOTH, HUGH - - -	463	20th Feb. 1863	Looms for weaving.
BOOTH, JABEZ - - -	2025	15th Aug. 1863	Manufacture of paper hangings.
BOOTH, JAMES - - -	1560	20th June 1863	Winding machines.
BOOTH, JEREMIAH - -	2814	12th Nov. 1863	Guy cranes and other similar cranes.
BOOTH, JOHN - - -	2814	12th Nov. 1863	Guy cranes and other similar cranes.
BOOTH, JOHN PETER - -	2719	3rd Nov. 1863	Beds and bedding.
BOOTH, JOSEPH - - -	2814	12th Nov. 1863	Guy cranes and other similar cranes.
BOOTH, THOMAS - - -	2197	7th Sept. 1863	Machinery for preparing and spinning cotton and other fibrous substances.
BOOTHROYD, WILLIAM - -	1119	5th May 1863	Stationary engines or apparatus for obtaining motive-power.
BORIE, EDWARD - - -	1619	29th June 1863	An improved cork cutting machine. (Patented by George Davies.)
BOSIO, MICHEL ANGE - -	2711	2nd Nov. 1863	Clock work movements. (Patented by William Edward Newton.)
BOSSELUT, NOEL - - -	519	25th Feb. 1863	Improvements in lamps for burning petroleum and other similar oils, and in feeders or cans for supplying such oils to lamps. (Patented by Richard Archibald Brooman.)
BOSSHARD, HENRY - - -	225	24th Jan. 1863	Machines for carding fibrous materials. (Patented by Frederick Tolhausen.)
BOSWORTH, CHARLES FREDERICK. -	2151	31st Aug. 1863	Improvements in the mode of and apparatus to be used in sewing by machinery. (Patented by Alfred Vincent Newton.)
BOTTOM, JOHN FRANCIS - -	366	10th Feb. 1863	Means or apparatus for dressing lace and other fabrics.
BOUBÉE, ADOLPHE - - -	184	21st Jan. 1863	Improvements in apparatus for casting or moulding articles in glass and in imitation of precious stones or marbles.
BOULET, PIERRE FRANÇOIS -	1011	23rd April 1863	Improvements in the manufacture of tiles and in apparatus for the same. (Patented by William Clark.)
BOULT, FRANCIS - - -	1566	22nd June 1863	An improved method or process for obtaining patterns and designs for the arts and manufactures. (Communicated by Thomas James Hussey.)
BOULTON, WILLIAM - - -	2176	3rd Sept. 1863	An improved method of making and inlaying encaustic tiles or other plastic articles and substances.
BOURCART, JEAN JACQUES -	95	12th Jan. 1863	Winding or coping frames. (Patented by William Clark.)
BOURCART, JEAN JACQUES -	96	12th Jan. 1863	Carding-engines. (Patented by William Clark.)
BOURCART, JEAN JACQUES -	805	27th March 1863	Winding or coping frames. (Patented by William Clark.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOURCHANI, PIERRE - -	2378	28th Sept. 1863	An improved wax light or candle stand.
BOURNE, PETER - - -	1140	7th May 1863	Miners' lamps.
BOURNE, THEODORE - -	2115	27th Aug. 1863	Improved method of storing and holding petroleum and other oils, naphtha and other products of distillation containing essential oils. (Communicated by Seth Haskell Ingalls.)
BOURNE, THEODORE - -	3283	29th Dec. 1863	Cotton gins. (Communicated by Israel Fanning Brown.)
BOURNIQUE, LOUIS MARCEL -	1753	14th July 1863	Certain improvements in railway carriages.
BOURNIQUE, LOUIS MARCEL -	1754	14th July 1863	An improved waggon or truck to be used on railways.
BOURQUIN, JOHN PETER -	1729	10th July 1863	An improved construction of rolling press.
BOURREIFF, JEAN BAPTISTE [MARIE AMÉDÉE.	684	13th March 1863	Transferring by means of typography colours and metals on surfaces in general.
BOUSCATIÉ, FELIX CENONI -	2675	28th Oct. 1863	Clocks, watches and other time keepers. (Patented by Richard Archibald Brooman.)
BOUSFIELD, EDWARD TENNEY	680	7th April 1863	Improvements in steam-engines and in the means of applying the same to the tilling of land, also in apparatus to be used with such engines in the tilling of land.
BOUSFIELD, GEORGE TOMLIN- [SON.	63	7th Jan. 1863	Skate fasteners. (Communicated by Thomas Hope.)
BOUSFIELD, GEORGE TOMLIN- [SON.	119	14th Jan. 1863	Machinery for rolling, grinding and cutting files. (Communicated by William Picket Pierce.)
BOUSFIELD, GEORGE TOMLIN- [SON.	155	17th Jan. 1863	Hot air engines. (Communicated by Elmer Townsend.)
BOUSFIELD, GEORGE TOMLIN- [SON.	314	4th Feb. 1863	Improvements in postage, revenue and other stamps, and in apparatus for post marking and cancelling postage and other stamps. (Communicated by Marcus Porter Norton.)
BOUSFIELD, GEORGE TOMLIN- [SON.	446	18th Feb. 1863	Breech-loading fire-arms. (Communicated by Isaac Hartshorn.)
BOUSFIELD, GEORGE TOMLIN- [SON.	448	18th Feb. 1863	Improvements in the manufacture of boots and shoes, and in preparing india-rubber for such and other uses. (Communicated by Daniel Hayward.)
BOUSFIELD, GEORGE TOMLIN- [SON.	638	6th March 1863	Improvements in the manufacture of illuminating gas and in apparatus employed therein. (Communicated by Dr. William Elmer.)
BOUSFIELD, GEORGE TOMLIN- [SON.	842	1st April 1863	Steam-boilers. (Communicated by Edward Dickerson.)
BOUSFIELD, GEORGE TOMLIN- [SON.	1159	8th May 1863	Steam-engines. (Communicated by Francis Bowes Stevens.)
BOUSFIELD, GEORGE TOMLIN- [SON.	1218	14th May 1863	Machinery for rolling, grinding and cutting files and rasps. (Communicated by William Picket Pierce.)
BOUSFIELD, GEORGE TOMLIN- [SON.	1643	1st July 1863	A new and useful machine for preparing cotton, wool or other fibrous material. (Communicated by Cullen Whipple.)
BOUSFIELD, GEORGE TOMLIN- [SON.	2034	15th Aug. 1863	Manufacture of cement. (Communicated by Samuel Hilton.)
BOUSFIELD, GEORGE TOMLIN- [SON.	2061	19th Aug. 1863	Apparatus for feeding weft in hair cloth looms. (Communicated by Charles Bradley.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOUSFIELD, GEORGE TOMLIN- [SON.]	2162	1st Sept. 1863	Manufacture of illuminating gas. (Communicated by Dr. William Elmer.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	2224	9th Sept. 1863	Improvements in rollers to be used in machinery for spinning and manufacturing wool, cotton and other fibrous materials. (Communicated by Amos Taylor.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	2328	21st Sept. 1863	Power looms for weaving hair cloth and fabrics in which the weft is inserted in separate lengths of material. (Communicated by Charles Bradley.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	2420	2nd Oct. 1863	Revolver fire-arms. (Patented by Stephen Wood.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	2783	9th Nov. 1863	Construction of ships and vessels. (Communicated by William Keld Whytehead.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	2838	13th Nov. 1863	Apparatus used when rolling blinds, maps and other articles on rollers. (Communicated by Silas Safford Putnam and Harriet Luthera Packer.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	2870	16th Nov. 1863	Manufacture of cartridges. (Communicated by Albert Hook.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	3116	10th Dec. 1863	Manufacture of india-rubber and gutta-percha compounds. (Communicated by Thomas Mayall.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	3147	12th Dec. 1863	Washing-machinery. (Communicated by Thomas Mayall.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	3149	12th Dec. 1863	Fulling-machinery. (Communicated by Thomas Mayall.)
BOUSFIELD, GEORGE TOMLIN- [SON.]	3251	23rd Dec. 1863	Apparatus for forging and tempering bayonet blades, files and other articles. (Communicated by Hervey Waters.)
BOUTEL, CHARLES THOMAS -	1337	28th May 1863	A new or improved instrument for measuring distances and altitudes.
BOVILL, GEORGE HINTON -	1186	11th May 1863	Chains for cables and other purposes.
BOVILL, GEORGE HINTON -	1191	12th May 1863	Treating worn out railway tyres.
BOVILL, GEORGE HINTON	1203	13th May 1863	Manufacture of thick plates of wrought iron for armour plates and other purposes.
BOWDITCH, WILLIAM RENWICK	2800	11th Nov. 1863	Apparatus used in gas lighting.
BOWDITCH, WILLIAM RENWICK	3265	24th Dec. 1863	Improvements in supplying air to lights in mines and in the apparatus employed for that purpose.
BOWER, GEORGE - - -	513	24th Feb. 1863	Apparatus for the production and transmission of gas or other fluids.
BOWER, GEORGE - - -	1143	7th May 1863	Improvements in the purification of gas ordinarily used in illuminating, and in the reduction of ores and smelting of metals by means of such gas so purified.
BOWER, HENRY - - -	304	3rd Feb. 1863	An improved injector or apparatus for feeding boilers with water.
BOWHAY, JOHN LEAKEY -	1671	4th July 1863	Arrangement and construction of fixed and portable combined thrashing-machines.
BOWLER, WILLIAM - - -	2311	19th Sept. 1863	An improved mode of strengthening tilt hammers.
BOWRA, MATTHIAS EDWARD -	4	1st Jan. 1863	Manufacture of elastic fabrics.
BOWRON, JAMES - - -	2422	2nd Oct. 1863	Manufacture of soda.
BOWRON, JAMES - - -	3044	3rd Dec. 1863	Manufacture of soda and sulphuric acid.

[Box]

ALPHABETICAL INDEX OF PATENTEEES

[Bra

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BOX, WILLIAM WILLIAMS -	1491	15th June 1863	Improvements in fire bars for the boilers of locomotive and other engines, and for fire boxes and furnaces generally.
BOX, WILLIAM WILLIAMS -	3165	15th Dec. 1863	Improvements in fire bars for the boilers of locomotive and other engines, and for fire boxes and furnaces generally.
BOXER, EDWARD MUNIER -	3005	1st Dec. 1863	Fuzes and shells for ordnance.
BOYD, ALEXANDER -	2138	29th Aug. 1863	Looms for weaving.
BOYD, JAMES EDWARD -	3092	8th Dec. 1863	Lawn mowing and grass cutting machines. (<i>Communicated by Henry Fisher.</i>)
BOYD, JOHN - - -	1858	25th July 1863	Improved mechanism for forming imitation selvages or longitudinal cords in weaving.
BOYLE, MARY ANNE -	2613	23rd Oct. 1863	Portable writing and despatch boxes.
BOYLE, THOMAS - - -	102	13th Jan. 1863	A new apparatus for multiplying indefinitely the reflections of all objects that are capable of being viewed in it.
BOYLE, THOMAS - - -	1836	1st July 1863	An improved system of ventilation applicable to every description of dwelling place and building.
BOZZI, ANTONIO - - -	2416	2nd Oct. 1863	An improved compound reactive agent and universal mordant to be employed in the processes of dyeing and printing. (<i>Patented by John Garrett Tongue.</i>)
BRADDAUL, GEORGES - -	2619	23rd Oct. 1863	An improved mechanism for regulating the working of springs. (<i>Patented by Frederick Tolhausen.</i>)
BRADFORD, THOMAS - -	312	4th Feb. 1863	Machinery or apparatus for washing, wringing and mangling clothes or other textile fabrics.
BRADLEY, CHARLES - -	2061	19th Aug. 1863	Apparatus for feeding weft in hair cloth looms. (<i>Patented by George Tomlinson Bousfield.</i>)
BRADLEY, CHARLES - -	2328	21st Sept. 1863	Power looms for weaving hair cloth and fabrics in which the weft is inserted in separate lengths of material. (<i>Patented by George Tomlinson Bousfield.</i>)
BRADSHAW, JAMES - -	1616	27th June 1863	Looms for weaving.
BRADSHAW, PETER - -	1122	5th May 1863	Mounting or hanging millstones for grinding grain and other substances.
BRADSHAW, THOMAS - -	1907	1st Aug. 1863	Certain improvements in machinery or apparatus for giving motion to "Dobby horses," "flying and swinging boats" or similar apparatus used for public amusement.
BRADSHAW, WILLIAM - -	1616	27th June 1863	Looms for weaving.
BRAE, ANDREW EDMUND -	1596	24th June 1863	Apparatus for actuating domestic bells and other signals by the electric current.
BRAE, ANDREW EDMUND -	2007	14th Aug. 1863	Improved means of conducting electric currents through railway trains and of actuating signals or alarums therein.
BRAENDLIN, FRANCIS AU- [GUSTUS.	2147	31st Aug. 1863	Breech-loading fire-arms.
BRAHAM, LEWIS - - -	2771	7th Nov. 1863	Spectacles and hand frames.
BRAILSFORD, RICHARD - -	3008	1st Dec. 1863	Construction of vermin traps.
BRAITHWAITE, CHARLES [LLOYD.	1153	8th May 1863	Machinery for feeding slivers of wool and other material to carding-engines.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BRAITHWAITE, WILLIAM -	1462	11th June 1863	Reversing levers for locomotive engines and others.
BRAKELL, CHRISTOPHER -	2429	5th Oct. 1863	Rotary engines worked by steam, water or other motive-power.
BRAKELL, CHRISTOPHER -	2430	5th Oct. 1863	Motive engines worked by water, steam or other motive-power. (Partly communicated by Albert Westfield.)
BRAMALL, EDWIN - - -	3277	28th Dec. 1863	Certain improvements in apparatus or mechanism for obtaining and applying motive-power.
BRANDÈS, JULES COHEN -	195	22nd Jan. 1863	An improved hair creaser or divider.
BRANFORD, JOHN WILLIAM -	277	30th Jan. 1863	Improvements in horse hoes and in the means of using the same in husbandry.
BRANFORD, JOHN WILLIAM -	1884	30th July 1863	An improved agricultural implement for hoeing and cleaning the land, and for cutting or setting out the plants of root crops at certain distances from each other.
BRASSEY, ROBERT BENJAMIN	1810	20th July 1863	Machinery or apparatus for sizing and drying yarns and fabrics.
BRAY, JOSEPH - - -	837	1st April 1863	Construction of omnibuses, railway carriages and other vehicles.
BREANSKI, LEOPOLD DE -	1029	25th April 1863	Improved apparatus for fixing drills, which invention is also applicable for fixing apparatus for raising, supporting and suspending weights and for other analogous purposes.
BRENNAND, JOHN - - -	2047	18th Aug. 1863	An improved construction of fire bar and apparatus connected therewith.
BREWER, EDWARD GRIFFITH	1091	30th April 1863	Improvements in welding and rolling metals and in machinery connected therewith. (Communicated by Michel Helson.)
BRIANSKY, DIODOR - - -	1721	10th July 1863	Mode of preserving and protecting the silvering of mirrors. (Patented by Marc Antoine François Mennons.)
BRIDSON, HENRY - - -	2608	22nd Oct. 1863	Machinery for plaiting or folding fabrics.
BRIERLEY, JOHN - - -	1166	9th May 1863	Dyeing knickerbocker yarns and textile fabrics manufactured of or from such yarns.
BRIERLEY, JOHN HENRY -	710	17th March 1863	An "All England's cricketers' clasp."
BRIERLEY, JOHN HENRY -	711	17th March 1863	An "album belt."
BRIERLEY, JOHN HENRY -	1374	2nd June 1863	The application of leather in the manufacture of gentlemen's scarfs and ties.
BRIERLEY, JOHN HENRY -	3081	8th Dec. 1863	Buckles for brace and other dress fastenings.
BRIGGS, JOHN - - -	2046	18th Aug. 1863	Certain improvements in coating or covering "crinoline steel."
BRIGGS, THOMAS JAMES -	1046	27th April 1863	Manufacture of mill straps and driving bands.
BRIGGS, THOMAS JAMES -	2367	26th Sept. 1863	Manufacture of driving straps or bands and of flexible tubes or hose.
BRIGHAM, JOHN - - -	751	20th March 1863	Reaping or mowing machines.
BRIGHAM, JOHN - - -	2339	22nd Sept. 1863	Reaping or mowing machines.
BRIGHAM, JOHN - - -	2695	30th Oct. 1863	Reaping and mowing machines.
BRIGHTON, WILLIAM - -	2399	30th Sept. 1863	An improved sight piece for rifles. (Patented by Benjamin Browne.)
BRINDLEY, JOSEPH - - -	2622	23rd Oct. 1863	Smoking pipes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BRINSMEAD, HENRY - -	1607	25th June 1863	Improvements in machinery applicable to thrashing machines and for cutting and bruising straw.
BRINSMEAD, HENRY - -	1657	3rd July 1863	Cooking apparatus.
BRINSMEAD, THOMAS - -	2921	20th Nov. 1863	Apparatus for thrashing and reeding wheat and other straw.
BRINTON, JOHN - - -	1736	11th July 1863	Improvements in weaving "chenille" and in the machinery or apparatus connected therewith.
BRISTOL, RICHARD - - -	2927	20th Nov. 1863	Improvements in steam-engines and in apparatus connected therewith.
BRIXEY, GEORGE - - -	1549	20th June 1863	Apparatus and implements for cleaning spoons and forks.
BROADHEAD, HENRY - -	1653	3rd July 1863	Breech-loading ordnance and gun carriages.
BROADLEY, JAMES - - -	2044	18th Aug. 1863	Means or apparatus employed in weaving.
BROADWELL, LEWIS WELLS -	1281	21st May 1863	Breech-loading ordnance and breech-loading and other small arms. (Patented by Richard Archibald Brooman.)
BROCKBANK, GEORGE HENRY	2821	12th Nov. 1863	Pianofortes.
BROCKLEHURST, WILLIAM [COARE.	1413	8th June 1863	Certain improvements in machinery or apparatus for winding yarns or threads.
BROCKLEHURST, WILLIAM [COARE.	2979	27th Nov. 1863	Certain improvements in machinery or apparatus for winding yarns or threads.
BROCOT, NARCISSE ANTOINE -	2390	29th Sept. 1863	Permanent way of railways. (Patented by William Edward Gedge.)
BROMWICH, BRYAN I'ANSON -	261	28th Jan. 1863	An improved mode of obtaining and applying motive-power.
BROOKE, JOSEPH - - -	1444	10th June 1863	Miners' lamps.
BROOKE, SIR WILLIAM [O'SHAUGHNESSY.	160	19th Jan. 1863	Manufacture of insulators for electric telegraphs.
BROOKS, EDGAR - - -	1585	23rd June 1863	Breech-loading fire-arms.
BROOKS, ROBERT - - -	2729	4th Nov. 1863	Improved arrangements for facilitating the teaching and playing of stringed instruments of the character of the violin, viola, violincello, double bass and guitar.
BROOKS, THOMAS - - -	2029	15th Aug. 1863	Means or apparatus for the production of charcoal and other products from refuse tan and other woody substances.
BROOMAN, RICHARD ARCHI- [BALD.	107	13th Jan. 1863	Improvements in machinery for lifting bobbins off spindles in spinning machines, and in lubricating spindles. (Communicated by Louis François Filleul and Dominique Jarriel.)
BROOMAN, RICHARD ARCHI- [BALD.	143	15th Jan. 1863	Looms or machinery for the manufacture of lace and other fabrics. (Communicated by Louis Planche, Gustave Lafond, Désiré Sival called Laserve, and Léon Sival called Laserve.)
BROOMAN, RICHARD ARCHI- [BALD.	162	19th Jan. 1863	Manufacture of sulphate of soda for conversion into soda and other uses. (Communicated by Germain Adolphe Thibierge.)
BROOMAN, RICHARD ARCHI- [BALD.	223	24th Jan. 1863	Manufacture of anvils and other metal articles requiring hard surfaces. (Communicated by Louis Jules Dukesme Alexandre Rey and Ernest Muxaux.)
BROOMAN, RICHARD ARCHI- [BALD.	231	26th Jan. 1863	Petticoats or crinolines. (Communicated by Charles Edmond François Couturier.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROOMAN, RICHARD ARCHI- [BALD.]	266	29th Jan. 1863	Manufacture of candles. (Communicated by Pierre Louis Durand.)
BROOMAN, RICHARD ARCHI- [BALD.]	328	5th Feb. 1863	Improvements in machinery for supplying and spreading wool and other filamentous materials on belts, tables and other surfaces, to be afterwards carded and otherwise acted on. (Communicated by Jean Joseph Jules Pierard.)
BROOMAN, RICHARD ARCHI- [BALD.]	330	5th Feb. 1863	Apparatuses for tuning pianofortes. (Communicated by François Delsarte.)
BROOMAN, RICHARD ARCHI- [BALD.]	337	6th Feb. 1863	Improvements in carding-engines whereby slivers are formed into threads ready for spinning. (Communicated by François Jacques Grün and Henri Gand.)
BROOMAN, RICHARD ARCHI- [BALD.]	376	11th Feb. 1863	Photographic apparatus. (Communicated by Jean Jacques Leopold Rousseau de Lafarge.)
BROOMAN, RICHARD ARCHI- [BALD.]	420	16th Feb. 1863	An improved cover or protection for steel and other metal springs, ribbands and hoops. (Communicated by Eugene Lange.)
BROOMAN, RICHARD ARCHI- [BALD.]	488	23rd Feb. 1863	Improvements in dressing millstones, in ornamenting or engraving on glass, pottery and other similar substances, and in materials employed therein. (Communicated by Cyprien Marie Tessié du Motay and Charles Raphael Maréchal.)
BROOMAN, RICHARD ARCHI- [BALD.]	519	25th Feb. 1863	Improvements in lamps for burning petroleum and other similar oils; and in feeders or cans for supplying such oils to lamps. (Communicated by Noel Bosselut.)
BROOMAN, RICHARD ARCHI- [BALD.]	556	27th Feb. 1863	A new method of and apparatus for boring into water and gas supply pipes, and fixing branch pipes thereon. (Communicated by Edme Ernest Mathelin and Pierre Lucien Mathelin.)
BROOMAN, RICHARD ARCHI- [BALD.]	662	11th March 1863	Voltaic belts and bandages. (Communicated by Florent Babin.)
BROOMAN, RICHARD ARCHI- [BALD.]	723	18th March 1863	Manufacture of spoons and forks. (Communicated by Wilhelm Conraetz and Fritz Dittler.)
BROOMAN, RICHARD ARCHI- [BALD.]	746	20th March 1863	Machinery for beating and drying wool and other textile and filamentous substances. (Communicated by Louis César Carlier Vitu.)
BROOMAN, RICHARD ARCHI- [BALD.]	785	25th March 1863	Improvements in the manufacture of cords, ropes and cables, and in machinery employed therein, applicable also to spinning, winding and twisting fibrous and filamentous substances. (Communicated by Jean Antoine de Maniquet.)
BROOMAN, RICHARD ARCHI- [BALD.]	803	27th March 1863	Machinery for scouring wool. (Communicated by Jean Henri Chaudet and Firmin Natalis Thuillier.)
BROOMAN, RICHARD ARCHI- [BALD.]	830	31st March 1863	Electric telegraph printing apparatus. (Communicated by Theodore Auguste Marie Sortais.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROOMAN, RICHARD ARCHI- [BALD.]	878	7th April 1863	Improvements in the manufacture of baryta and its derivatives, in obtaining by-products, and in revivifying or recovering certain agents employed in such manufacture. (Communicated by Julien Gabriel Lelong Burnet.)
BROOMAN, RICHARD ARCHI- [BALD.]	879	7th April 1863	Improvements in reproducing or obtaining facsimiles of the veins, pores, knots and figures of wood, upon paper and other surfaces. (Communicated by François Magny and Alexandre Cottais.)
BROOMAN, RICHARD ARCHI- [BALD.]	940	14th April 1863	Hardening and coloring gypseous limestone and sand and calcareous stones. (Communicated by Pascal Nicolas Balthazar Fioravanti.)
BROOMAN, RICHARD ARCHI- [BALD.]	941	14th April 1863	Lamps for burning light and heavy mineral and vegetable oils. (Communicated by Etienne Laporte.)
BROOMAN, RICHARD ARCHI- [BALD.]	1054	27th April 1863	Improvements in twisting and doubling silk and in frames employed therein. (Communicated by Auguste Tastevin.)
BROOMAN, RICHARD ARCHI- [BALD.]	1120	5th May 1863	A new fabric suitable for trimmings. (Communicated by Jacques Desprez and Georges Montailé.)
BROOMAN, RICHARD ARCHI- [BALD.]	1170	9th May 1863	Manufacture of lamp black. (Communicated by Johan Ephraim Lundgren.)
BROOMAN, RICHARD ARCHI- [BALD.]	1183	11th May 1863	Improvements in coupling and disconnecting carriages on railways, and in machinery employed therein. (Communicated by Bartolomé Castelli.)
BROOMAN, RICHARD ARCHI- [BALD.]	1195	12th May 1863	Spring mattresses. (Communicated by Madame Julie Adolphe Massé.)
BROOMAN, RICHARD ARCHI- [BALD.]	1196	12th May 1863	Spring mattresses, sofas, chairs, seats and similar articles. (Communicated by Marc Louis Denis.)
BROOMAN, RICHARD ARCHI- [BALD.]	1197	12th May 1863	Machinery for preparing, dressing and winding cotton, woollen, flax, silk and other warps. (Communicated by Pierre François Dacheux and Gustave Lefebvre.)
BROOMAN, RICHARD ARCHI- [BALD.]	1199	13th May 1863	Laying submarine telegraph cables. (Communicated by Adolphe Pelegrin and Auguste Garbeiron.)
BROOMAN, RICHARD ARCHI- [BALD.]	1209	13th May 1863	Improvements in the extraction of hydrocarbons from minerals in the distillation thereof, and in apparatus employed therein. (Communicated by Félix Alexandre Testud de Beauregard.)
BROOMAN, RICHARD ARCHI- [BALD.]	1281	21st May 1863	Breech-loading ordnance and breech-loading and other small arms. (Communicated by Lewis Wells Broadwell.)
BROOMAN, RICHARD ARCHI- [BALD.]	1301	23rd May 1863	Improvements in indicating the position of trains upon railways and in apparatus employed therein. (Communicated by Albert Mayrhofer, Adolf Stepski and Martin Cracki.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROOMAN, RICHARD ARCHI- [BALD.]	1302	23rd May 1863	Improvements in the manufacture of bells and of resisting and non-cutting tools. (Communicated by Henri Micolon.)
BROOMAN, RICHARD ARCHI- [BALD.]	1303	23rd May 1863	Safety garments. (Communicated by André Selingue.)
BROOMAN, RICHARD ARCHI- [BALD.]	1346	28th May 1863	Paddle wheels. (Communicated by Gustave Sahler.)
BROOMAN, RICHARD ARCHI- [BALD.]	1402	5th June 1863	Treating liquorice root to obtain liquid and solid extracts therefrom. (Communicated by Frumence Nicolas Frezon.)
BROOMAN, RICHARD ARCHI- [BALD.]	1433	9th June 1863	Distillation of bituminous substances. (Communicated by John Saunders.)
BROOMAN, RICHARD ARCHI- [BALD.]	1512	16th June 1863	Improvements in protecting or preserving the silvering or quicking on glass, and in the manufacture of glass vessels for silvering or quicking. (Communicated by Joseph Jules Anthoine and François Étienne Hyppolite Brossette.)
BROOMAN, RICHARD ARCHI- [BALD.]	1581	23rd June 1863	Breech-loading arms. (Communicated by Cosme Garcia Saez.)
BROOMAN, RICHARD ARCHI- [BALD.]	1646	2nd July 1863	Certain compositions for protecting metals and metallic articles from oxidation, and for coating slate, bricks, pottery and ceramic ware. (Communicated by Camille Baroness de Lavenant.)
BROOMAN, RICHARD ARCHI- [BALD.]	1709	9th July 1863	Improvements in ships and in propelling the same. (Communicated by Auguste Salzmänn.)
BROOMAN, RICHARD ARCHI- [BALD.]	1738	11th July 1863	Cartridges for breech-loading arms. (Communicated by Alfred Isidore Honoré Parent.)
BROOMAN, RICHARD ARCHI- [BALD.]	1749	13th July 1863	Apparatus for suspending chandeliers, gaseliers and other weights. (Communicated by Eugene Frederic Piot and Theodore Auguste Baudrit.)
BROOMAN, RICHARD ARCHI- [BALD.]	1750	13th July 1863	Sizing or gumming warp and weft threads. (Communicated by Stanislas Vigoureux.)
BROOMAN, RICHARD ARCHI- [BALD.]	1774	15th July 1863	Improved means of and apparatus for reducing charcoal and other friable substances to fine or impalpable powder, particularly applicable to the manufacture of a substitute for lamp black. (Communicated by Johan Ephraim Lundgren.)
BROOMAN, RICHARD ARCHI- [BALD.]	1775	15th July 1863	Apparatus for telegraphing by electricity. (Communicated by Woldemar Stroubinsky.)
BROOMAN, RICHARD ARCHI- [BALD.]	1799	17th July 1863	An improved varnish for preserving metal and wood. (Communicated by Messieurs Chaumont and Company.)
BROOMAN, RICHARD ARCHI- [BALD.]	1828	21st July 1863	Watches and other time-keepers. (Communicated by Adrien Phillipe.)
BROOMAN, RICHARD ARCHI- [BALD.]	1866	27th July 1863	Sleepers or supports for the rails of railways. (Communicated by Charles Marie Pouillet.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROOMAN, RICHARD ARCHI- [BALD.	1902	1st Aug. 1863	Dyeing mixed animal and vegetable fibres whether in a raw or manufactured state. (Communicated by Theophile Grison.)
BROOMAN, RICHARD ARCHI- [BALD.	1903	1st Aug. 1863	An improved warming pan. (Communicated by Joseph Ginston.)
BROOMAN, RICHARD ARCHI- [BALD.	1954	7th Aug. 1863	Coke ovens. (Communicated by Charles Claude Philibert Nicolas Pernolet.)
BROOMAN, RICHARD ARCHI- [BALD.	2052	18th Aug. 1863	Improvements in the manufacture of hats, caps and bonnets, and in apparatus employed therein. (Communicated by Eugene Coannet.)
BROOMAN, RICHARD ARCHI- [BALD.	2053	18th Aug. 1863	An improved method of and apparatus for treating molasses, syrups, saccharine juices and other products. (Communicated by Auguste Pierre Dubrunfaut.)
BROOMAN, RICHARD ARCHI- [BALD.	2078	21st Aug. 1863	Improvements in expressing and filtering oil from seeds and liquids from other substances containing the same, and in apparatus employed therein. (Communicated by Guillaume Cregut and Tschiffeli, Brothers.)
BROOMAN, RICHARD ARCHI- [BALD.	2084	22nd Aug. 1863	Closing powder canisters and other vessels. (Communicated by Joseph Sagnes.)
BROOMAN, RICHARD ARCHI- [BALD.	2086	22nd Aug. 1863	A new metallic alloy. (Communicated by Henri Micolon.)
BROOMAN, RICHARD ARCHI- [BALD.	2098	24th Aug. 1863	Air and gas engines. (Communicated by Auguste Nicol Otto.)
BROOMAN, RICHARD ARCHI- [BALD.	2209	8th Sept. 1863	Machines for working and preparing skins. (Communicated by André Adler.)
BROOMAN, RICHARD ARCHI- [BALD.	2284	17th Sept. 1863	Taps. (Communicated by Jean Louis De Wardquier.)
BROOMAN, RICHARD ARCHI- [BALD.	2298	18th Sept. 1863	An improved thread for fishing nets. (Communicated by David Alexandre Aguilton.)
BROOMAN, RICHARD ARCHI- [BALD.	2338	22nd Sept. 1863	Certain compositions for preserving cheese. (Communicated by Jean Neuenschwander.)
BROOMAN, RICHARD ARCHI- [BALD.	2444	6th Oct. 1863	Steam-boilers and furnaces. (Communicated by Johann Christian Carsten Meyn.)
BROOMAN, RICHARD ARCHI- [BALD.	2483	9th Oct. 1863	Improvements in amalgamating and separating gold and silver from quartz and earths containing the same, and in apparatus employed therein. (Communicated by Henry Wright Adams and William Savage Worthington.)
BROOMAN, RICHARD ARCHI- [BALD.	2533	16th Oct. 1863	Pumps to be worked by steam. (Communicated by Guillaume Samuel Dobbs.)
BROOMAN, RICHARD ARCHI- [BALD.	2587	21st Oct. 1863	Improvements in treating ligneous substances, in separating and recovering the fibrous portions therefrom, in preparing, bleaching and sizing the same, and in machinery employed therein. (Communicated by Pierre Celestin Victor Baud and Theodore Casimir Delamarre.)
BROOMAN, RICHARD ARCHI- [BALD.	2607	22nd Oct. 1863	A new material for tanning. (Communicated by Antoine François Michel.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROOMAN, RICHARD ARCHI- [BALD.	2674	28th Oct. 1863	Instruments for taking astronomical and other observations. (Communicated by Charles Emmanuel.)
BROOMAN, RICHARD ARCHI- [BALD.	2675	28th Oct. 1863	Clocks, watches and other time-keepers. (Communicated by Felix Cenoni Bouscatie.)
BROOMAN, RICHARD ARCHI- [BALD.	2856	14th Nov. 1863	Presses for lithographic and other printing. (Communicated by Jean Theodore Dupuy.)
BROOMAN, RICHARD ARCHI- [BALD.	2858	14th Nov. 1863	Engines and boilers specially applicable for agricultural purposes. (Communicated by Jean Baptiste Pierret and André Schweizer.)
BROOMAN, RICHARD ARCHI- [BALD.	2875	16th Nov. 1863	Improvements in the manufacture of salt and in boilers to be fed by salt water. (Communicated by Charles Louis Edouard Lequin.)
BROOMAN, RICHARD ARCHI- [BALD.	3037	2nd Dec. 1863	Distillation or treatment of bituminous substances. (Communicated by John Saunders.)
BROOMAN, RICHARD ARCHI- [BALD.	3051	4th Dec. 1863	Working railway breaks. (Communicated by Donald Bethune.)
BROOMAN, RICHARD ARCHI- [BALD.	3070	7th Dec. 1863	Crinoline or hooped skirts. (Communicated by Edme Ferdinand Evras.)
BROOMAN, RICHARD ARCHI- [BALD.	3132	11th Dec. 1863	Manufacture of nuts. (Communicated by Jean François Fuzellier Leger.)
BROOMAN, RICHARD ARCHI- [BALD.	3133	11th Dec. 1863	Machinery for grounding or colouring wall paper and other fabrics. (Communicated by Richard McNamee.)
BROOMAN, RICHARD ARCHI- [BALD.	3140	12th Dec. 1863	Steam-engines. (Communicated by Victor Barbier.)
BROOMAN, RICHARD ARCHI- [BALD.	3156	14th Dec. 1863	Ships' cooking and distilling apparatus. (Communicated by Auguste Cardinal, jr.)
BROOMAN, RICHARD ARCHI- [BALD.	3178	16th Dec. 1863	Apparatus for working railway signals and for raising and lowering signal lamps. (Communicated by Jean Joseph Baranowski.)
BROOMAN, RICHARD ARCHI- [BALD.	3236	22nd Dec. 1863	Feeding steam-boilers and condensers. (Communicated by Claude Jonchier.)
BROOMAN, RICHARD ARCHI- [BALD.	3267	24th Dec. 1863	Permanent way of railways. (Communicated by Charles Ferdinand Zorès.)
BROSSETTE, FRANÇOIS ETIENNE [HYPPOLITE.	1512	16th June 1863	Improvements in protecting or preserving the silvering or quicking on glass, and in the manufacture of glass vessels for silvering or quicking. (Patented by Richard Archibald Brooman.)
BROUGHTON, JOHN - - -	3200	19th Dec. 1863	Taps, cocks or faucets. (Patented by John Macarthy.)
BROWN, BENJAMIN - - -	2634	24th Oct. 1863	Sewing-machines. (Communicated by Richard Mott Wanzer.)
BROWN, BENJAMIN - - -	2908	19th Nov. 1863	Machinery for preparing cotton to be spun.
BROWN, CHARLES - - -	29	3rd Jan. 1863	Certain improvements in treating or covering strip steel or other suitable material for the making of crinoline skirts and other similar purposes for which the same may be applicable, and which same treatment or covering may be used for trimming or strengthening certain parts of ladies' dresses.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BROWN, CHARLES - - -	3077	7th Dec. 1863	An improved manufacture of elastic bands applicable to the production of ladies' skirts or "crinolines."
BROWN, HARVEY - - -	2006	13th Aug. 1863	Burners for lamps for burning oils or fluids.
BROWN, HENRY ROWLAND -	1964	8th Aug. 1863	New or improved apparatus for the regulated delivery of cards, tickets, labels, bills and sheets or pieces of cardboard, paper, metal or other material, for advertising or other purposes.
BROWN, HENRY WALTER -	536	26th Feb. 1863	Improvements in window-frames and in glazing windows.
BROWN, ISRAEL FANNING -	3283	29th Dec. 1863	Cotton gins. (Patented by Theodore Bourne.)
BROWN, JAMES - - -	2629	24th Oct. 1863	Preparing cements and varnishes.
BROWN, JOHN - - -	481	21st Feb. 1863	Manufacture of armour plates for ships and other structures. (Communicated by Alexander Holley.)
BROWN, JOHN - - -	1533	19th June 1863	Certain improvements in apparatus for steaming cotton or other fibrous substances.
BROWN, JOHN HARCOURT -	2704	31st Oct. 1863	Fastening and securing envelopes, letters, despatches, parcels, packages and other similar articles.
BROWN, JOHN NURTHALL -	885	8th April 1863	Improvements in securing or connecting the bearing springs of railway carriages and wagons to the axle-boxes of the said carriages and wagons.
BROWN, WILLIAM ARMITAGE -	1407	8th June 1863	An indicator for railway trains.
BROWN, WILLIAM FULFORD -	3303	31st Dec. 1863	Improved fastenings for scarfs, ribbons, neckties and other articles of dress, by means of a ring with a spring clasp or chain band or pliable shank.
BROWN, WILLIAM HENRY -	2	1st Jan. 1863	Battery plates.
BROWNE, BENJAMIN - -	1229	16th May 1863	Manufacture of elastic material. (Communicated by Gustave Mayer.)
BROWNE, BENJAMIN - -	2399	30th Sept. 1863	An improved sight piece for rifles. (Communicated by William Brighton.)
BROWNING, THOMAS - -	2498	12th Oct. 1863	Improvements applicable to metallic casks and the machinery for the manufacture of the same.
BROWNLEE, ROBERT - -	1547	20th June 1863	Sawing machinery.
BRUCE, WILLIAM SQUIRE -	56	7th Jan. 1863	Improvements in lucifer matches, fusees and other similar lights, and in the boxes or holders for containing the same. (Communicated by Thomas Jordery.)
BRUCE, WILLIAM SQUIRE -	1683	7th July 1863	Improvements in lucifer matches, fusees and other similar lights, and in the boxes or holders for containing the same. (Communicated by Thomas Jordery.)
BRUET, LOUIS ALEXANDRE [JOSEPH.]	1035	25th April 1863	Improvements in apparatus for registering, indicating and verifying the time and distance passed over by vehicles, also applicable to machinery and other similar purposes.
BRUNT, JOHN - - -	2844	23rd Sept. 1863	Gas condensers. (Patented by Edward Thomas Hughes.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BRUNTON, GEORGE - - -	3170	15th Dec. 1863	Improvements in pressing cotton and other fibrous substances into bales, and in apparatus to be used for this purpose. (Patented by Charles James Robinson.)
BRYANT, FREDERICK EDWARD	998	22nd April 1863	Improved apparatus for ascertaining the temperature of steam and its power of tension. (Communicated by Hans Ambrouseus.)
BRYANT, JOHN - - -	2569	20th Oct. 1863	Vent apparatus for facilitating the drawing off or letting off fluids.
BRYANT, JOHN DYER - - -	3268	24th Dec. 1863	Projectiles for ordnance.
BRYDEN, JOHN MILLER - -	3172	16th Dec. 1863	Apparatus for painting Venetian blinds.
BUCHANAN, ANDREW - - -	2201	7th Sept. 1863	Improved apparatus for directing motion in right lines. (Patented by Alfred Vincent Newton.)
BUCHHOLZ, GUSTAV ADOLPH -	976	18th April 1863	Apparatus for hulling grain and for reducing granular substances.
BUCKINGHAM, JAMES - - -	1325	26th May 1863	Ploughs.
BUCKLAND, WILLIAM HENRY	632	5th March 1863	Improvements in the mode of and in the apparatus for producing gas for illuminating and heating purposes, parts of which improvements are also applicable for increasing the illuminating and heating power of ordinary lighting gas.
BUCKLEY, JOHN - - -	2307	19th Sept. 1863	Certain improvements in "mules" for spinning cotton and other fibrous substances.
BUDENBERG, ARNOLD - - -	2555	19th Oct. 1863	An improved blasting powder. (Communicated by Bernhard August Schöffner and Christian Friedrich Budenberg.)
BUDENBERG, CHRISTIAN FRIEDRICH.	2555	19th Oct. 1863	An improved blasting powder. (Patented by Arnold Budenberg.)
BULKLEY, EDMUND BROWN -	644	6th March 1863	Improvements in the construction of metal casks and in the machinery employed in the manufacture thereof. (Patented by William Edward Newton.)
BULL, THOMAS CHARLES -	1855	25th July 1863	An apparatus for collecting fruit from trees without injury.
BULLARD, EZEKIEL WILLIAMS	2397	30th Sept. 1863	A new and useful machine or carriage for turning and spreading hay and for other useful agricultural purposes.
BULLOCK, FREDERICK - - -	2599	22nd Oct. 1863	Ships' logs or apparatus for ascertaining the speed of ships.
BULLOUGH, JAMES - - -	3120	11th Dec. 1863	Looms for weaving.
BULLOUGH, JOHN - - -	34	5th Jan. 1863	Warping or beaming machines.
BUNCHOTON, ISACE VAN -	609	4th March 1863	Pressure and pump lamps. (Patented by Edward William Binney.)
BUNNEY, THOMAS - - -	623	5th March 1863	Means or apparatus for the manufacture of looped fabrics.
BUNTING, RICHARD - - -	1253	19th May 1863	Improvements in frames, tips and bolsters used in cutlery, and in securing handles or scales therein or thereto.
BURCH, JOSEPH - - -	2207	8th Sept. 1863	Improvements in printing on certain and other terry and velvet pile carpets, felted cloths and other fabrics and materials, and in the processes and apparatus connected therewith.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BURDEN, WILLIAM BENONI -	975	18th April 1863	Improvements in wheels and axles applicable to locomotives, carriages and paddle wheels.
BURDON, WILLIAM WHARTON	2606	22nd Oct. 1863	Reducing and preparing wood for the manufacture of paper and pulp.
BURGESS, CHARLES THOMAS -	1574	22nd June 1863	Reaping machines.
BURGESS, CHARLES THOMAS -	2329	21st Sept. 1863	Reaping machines.
BURGESS, ROBERT - - -	1178	11th May 1863	Machinery or apparatus for marking, etching or engraving cylindrical and other surfaces.
BURGY, EMANUEL - - -	1989	12th Aug. 1863	An improved mode and apparatus for dressing and finishing, and for imparting lustre to yarn and thread made of silk, cotton and other fibrous substances. (Patented by Louis Rudolph Bodmer.)
BURLEY, ROBERT - - -	363	10th Feb. 1863	Handles for hammers, mallets, picks, mattocks and similar tools.
BURNET, JULIEN GABRIEL [LELONG.	878	7th April 1863	Improvements in the manufacture of baryta and its derivatives, in obtaining by-products, and in revivifying or recovering certain agents employed in such manufacture. (Patented by Richard Archibald Brooman.)
BURNETT, BENJAMIN LILE -	2149	31st Aug. 1863	Improved arrangements for removing the fuel from stoves or grates, and for facilitating the extinguishing of the fires used therein.
BURNEY, CHARLES MAC -	3141	12th Dec. 1863	Construction and mode of attaching of india-rubber and other composition soles to boots and shoes, or to the uppers thereof. (Patented by John Henry Johnson.)
BURNS, FREDERICK MAUN -	1232	16th May 1863	Improvements in preventing the fouling of the bottoms and sides of ships and vessels, particularly applicable to ships and vessels constructed of or sheathed with iron.
BURRELL, JAMES - - -	1172	9th May 1863	Machinery for cutting the teeth of bevelled wheels.
BURRELL, JAMES - - -	1174	9th May 1863	Salinometers.
BURRELL, JAMES - - -	1214	14th May 1863	Construction of cocks or valves.
BURRELL, MAJOR - - -	1543	20th June 1863	Certain improvements in the construction of reels covered with silk or other suitable material, used as machines for the purpose of dressing flour.
BURROW, TAYLOR - - -	866	6th April 1863	Improvements in and machinery for combing or dressing silk, flax, wool, hemp, china-grass or other fibrous materials.
BURROWS, BENJAMIN - -	121	14th Jan. 1863	Looms used in weaving narrow fabrics.
BURT, GEORGE - - -	1103	2nd May 1863	Machinery for punching, stamping or forging metals.
BURTON, FREDERICK WILLIAM	2877	17th Nov. 1863	Improvements in the construction of music stools, tables and other articles of furniture, and in means of securing such articles to floors.
BURTON, JAMES RYDER - -	900	9th April 1863	A new method of and apparatus for cleansing ships' bottoms.
BURTON, JOHN WATSON -	503	24th Feb. 1863	Bearings and bushes of axles and shafts.
BURTON, JOHN WATSON -	579	2nd March 1863	An improved mode of refining and purifying oils.
BURTON, JOHN WATSON -	1008	23rd April 1863	Manufacture of metals.

[Bur]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Cal]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
BURTON, JOHN WATSON -	1819	25th May 1863	An improved machine or apparatus for getting coal or other minerals.
BURWIN, JOHN - - -	870	6th April 1863	Improvements in pickers and in the means or apparatus employed in the manufacture thereof.
BURY, SAMUEL - - -	1022	4th Aug. 1863	Certain improvements in valves for steam-engines.
BURY, WILLIAM TARLETON -	2497	12th Oct. 1863	An improvement in vessels or baths for containing heated metals and fluxes employed in the processes of hardening and tempering steel and steel articles.
BUSBRIDGE, GEORGE FREDERICK.	2694	30th Oct. 1863	Apparatus for feeding sheets of sized or unsized paper to a drying machine.
BUSCH, FREDERIC AUGUSTUS -	180	21st Jan. 1863	Manufacture of metallic vessels or receptacles for containing liquids or substances.
BUSER - KRAUSHAAR, FREDERICK.	674	12th March 1863	Improvements in apparatus for winding, cleaning, measuring, sorting, doubling, throwing and reeling silk, parts of which improvements are also applicable to like machinery for spinning, doubling and twisting cotton, wool and other fibrous materials.
BUTLER, JOHN SANDERSON -	118	14th Jan. 1863	Manufacture of bobbin net made on bobbin net or twist lace machines.
BUTLER, JOSEPH - - -	681	13th March 1863	Machinery for rolling armour plates, bridge plates, boat plates and other plates and bars of iron.
BUTLER, THOMAS - - -	112	13th Jan. 1863	Manufacture of lace in twist lace machines.
BUTLER, WILLIAM HENRY -	2772	7th Nov. 1863	An improvement in sewing-machines. (Patented by William Clark.)
BUTTERWORTH, RICHARD -	1070	28th April 1863	Certain improvements in carding-engines to be employed for carding cotton and other fibrous substances.
BUTTON, CHARLES POMEROY -	2453	7th Oct. 1863	Lamps especially applicable to the burning of hydro-carbons. (Communicated by William Painter.)
BUTTON, CHARLES POMEROY -	2454	7th Oct. 1863	Pumps. (Communicated by Walter Davies Sperry.)
BUTTON, CHARLES POMEROY -	2455	7th Oct. 1863	Harrows. (Communicated by Walter Davies Sperry.)
BYRNES, AUNGEIR - - -	3308	31st Dec. 1863	Breech-loading fire-arms.

C.

CADDICK, JOSEPH - - -	2451	7th Oct. 1863	Manufacture of runners, runner notches and top notches for umbrellas and parasols.
CALVERLEY, JOSEPH - - -	1661	4th July 1863	Manufacture and application of printing apparatus.
CALVERT, FRANCIS - - -	1465	12th June 1863	Machinery for burring, ginning, cleaning and carding cotton and other fibrous substances.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CALVERT, FRANCIS ALTON -	1399	5th June 1863	Certain improvements in steam-engines, steam-boilers and steam heating apparatus.
CALVERT, FRANCIS ALTON -	1465	12th June 1863	Machinery for burring, ginning, cleaning and carding cotton and other fibrous substances.
CALVERT, FRANCIS ALTON -	1809	20th July 1863	Machinery for opening, cleaning and preparing fibrous substances.
CALVERT, WILLIAM FIELDING	835	1st April 1863	Looms for weaving.
CALVERT, WILLIAM FIELDING	3175	16th Dec. 1863	Looms for weaving.
CAMBRIDGE, WILLIAM COL- [BORNE.	995	21st April 1863	Construction of harrows.
CAMERON, JOHN - - -	342	7th Feb. 1863	Manufacture of iron and alloys of iron.
CAMERON, SAMUEL - - -	2885	16th Nov. 1863	Improvements in taps or valves, in pipe joints, and in the valvular mechanism of waterclosets.
CAMMEL, CHARLES - - -	3038	2nd Dec. 1863	Improved railway crossings adapted to the ordinary single or double headed rails.
CAMPBELL, COLIN MINTON -	2761	6th Nov. 1863	Apparatus for drying plates and other articles of china and earthenware.
CAMPBELL, JAMES - - -	1730	10th July 1863	Improvements in the permanent way of railways and in supporting the rails thereof.
CAMPBELL, JAMES CAMERON	902	9th April 1863	An improved construction of offensive weapon. (Patented by Alfred Vincent Newton.)
CAMPION, WILLIAM - - -	996	21st April 1863	Machinery or apparatus employed in the manufacture of looped fabrics.
CAMPION, WILLIAM - - -	2997	30th Nov. 1863	A new or improved self-acting tifle register.
CANCALON, CHARLES AUGUSTE	677	12th March 1863	Breech-loading fire-arms. (Patented by William Clark.)
CANHAM, RICHARD - - -	1990	12th Aug. 1863	Machines for the preparation of moulds for casting.
CANNOP, HERBERT - - -	2782	9th Nov. 1863	Sawing machines.
CANOUIL, GERMAIN - - -	2466	8th Oct. 1863	Shooting toy fuses, toy rockets or other similar toy missiles, by means of toy pistols or other toy fire-arms.
CANTAGREL, FRANÇOIS JEAN -	1943	6th Aug. 1863	Taps or stop cock apparatus. (Patented by William Clark.)
CAPELLO, ANGE - - -	540	26th Feb. 1863	An improved method of and apparatus for glazing morocco leather.
CAPELLO, ANGE - - -	2095	24th Aug. 1863	An improved method of and apparatus for glazing morocco leather.
CAPPER, JASPER - - -	3026	2nd Dec. 1863	Improved apparatus for curing smokey chimnies and preventing down draughts therein.
CAPPONI, FRANÇOIS - - -	2522	14th Oct. 1863	An improved apparatus for cleaning ships' hulls. (Patented by Henri Adrien Bonneville.)
CARCHON, HILAIRE EMILE -	1047	27th April 1863	Improvements in the manufacture of hats and bonnets, and mode of preparing feathers to be used in the said manufacture.
CARDINAL, AUGUSTE, Jr. -	3156	14th Dec. 1863	Ships' cooking and distilling apparatus. (Patented by Richard Archibald Brooman.)
CARMEN, PIERRE JACQUES -	867	6th April 1863	Aerial machines. (Patented by William Edward Gedge.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CARO, HEINRICH - - -	192	21st Jan. 1863	Improvements in obtaining colouring matters, which improvements are also applicable to dyeing and printing.
CARO, HEINRICH - - -	3307	31st Dec. 1863	Obtaining colouring matters for dyeing and printing.
CARR, MARK WILLIAM - -	2658	27th Oct. 1863	Manufacture of wooden sleepers for railways.
CARR, THOMAS - - -	2947	23rd Nov. 1863	Improvements in machinery for amalgamating or intermixing dry, semifluid or aqueous materials, and for agitating solids with liquids, for combining, dissolving or washing the same.
CARRÉ, FERDINAND PHILIPPE [EDOUARD.]	142	15th Jan. 1863	A diopical metallic level indicator or liquid gauge. (Patented by Désiré François Leblanc.)
CARRÉ, FRANÇOIS - - -	1687	7th July 1863	Construction of seats, chairs, sofas, lounges and other similar articles of furniture. (Patented by William Edward Gedge.)
CARRETT, WILLIAM ELLIOT -	2630	24th Oct. 1863	Improvements in the working and mining of coal, minerals and earthy matters, and in the machinery, apparatus and means to be employed therein.
CARTER, CHARLES PEMBERTON	373	11th Feb. 1863	Pavements for roads, streets or ways.
CARTER, JOHN WALKER MC -	693	14th March 1863	Machinery for sawing or cutting wood.
CARTER, MATTHEW - - -	3169	15th Dec. 1863	Manufacture of paper from a material not hitherto used for that purpose. (Patented by Axel Stårck.)
CARTWRIGHT, HENRY - - -	1340	28th May 1863	Apparatus for steering vessels.
CARTWRIGHT, MATTHEW - -	77	9th Jan. 1863	Alarums for portable and stationary uses.
CARTWRIGHT, MATTHEW - -	365	10th Feb. 1863	Combining plastic substances with metals.
CARVER, JAMES - - -	553	27th Feb. 1863	Arrangement or fixing of combs in machines employed in the manufacture of bobbin net or twist lace.
CARVER, JAMES - - -	820	30th March 1863	Manufacture of carriages employed in machines for the making of lace and other fabrics.
CASHIN, THOMAS FREDERICK -	54	7th Jan. 1863	Covering wire crinoline steel or hoops for skirts.
CASHIN, THOMAS FREDERICK -	2076	21st Aug. 1863	Improved means of communication between the passengers, guard and driver of a railway train in motion.
CASSAIGNES, VICTOR JULIEN -	1204	13th May 1863	Stereoscopes.
CASSAIGNES, VICTOR JULIEN -	2618	23rd Oct. 1863	Improvements in the manufacture of the prisms, lenses and glasses of stereoscopes, and in ornamenting glass.
CASELL, JOHN - - -	663	11th March 1863	Improvements in moderator lamps to adapt them to the burning of petroleum and other mineral oils and hydro-carbons. (Communicated by Louis Martin.)
CASELL, JOHN - - -	849	2nd April 1863	Stills for the distillation of petroleum and other heavy oils.
CASELL, JOHN - - -	1268	21st May 1863	Treatment of mineral oils and hydro-carbons. (Communicated by Louis Martin.)
CASTELLVI, BARTOLOMÉ -	1183	11th May 1863	Improvements in coupling and disconnecting carriages on railways, and in machinery employed therein. (Patented by Richard Archibald Brooman.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CASTELNAU, FRANÇOIS - -	2793	10th Nov. 1863	Construction of two-wheeled vehicles or carriages.
CATE, GEORGE - - -	2754	6th Nov. 1863	Machinery for cutting corks, bungs, gun wads and other similar articles.
CATLOW, CHRISTOPHER - -	530	25th Feb. 1863	Looms for weaving.
CATLOW, CHRISTOPHER - -	1056	27th April 1863	Looms for weaving.
CATLOW, CHRISTOPHER - -	1994	12th Aug. 1863	Looms for weaving.
CATO, PETER - - -	2379	28th Sept. 1863	Construction of combined iron and timber ships.
CAUDERON, EMILE - - -	1455	11th June 1863	A new or improved daily balance book with moveable or sliding tickets or slips. (Patented by Charles Louis Van Tenac.)
CAUDWELL, HENRY - - -	914	10th April 1863	Improvements in the construction of vessels of war, part of which improvements is applicable to fortifications.
CAUNTER, HENRY - - -	1678	6th July 1863	An improved lubricating matter or composition.
CAUNTER, HENRY - - -	3290	29th Dec. 1863	Manufacture of lubricating matter or composition.
CAVALERIE, MARCELIN FRAN- ÇOIS DOROTHÉ.	2518	14th Oct. 1863	Certain improvements in obtaining centrifugal motive-power.
CAVANAH, JAMES - - -	2668	28th Oct. 1863	Machinery or apparatus for making bricks and tiles, applicable also for washing and drying clay.
CAVANAH, JOHN - - -	1014	24th April 1863	An improvement in cricket bats.
CAVANAH, JOHN - - -	2668	28th Oct. 1863	Machinery or apparatus for making bricks and tiles, applicable also for washing and drying clay.
CAZIER, SABIN JOSEPH - -	172	20th Jan. 1863	Apparatus for retarding and stopping railway carriages. (Patented by Michael Henry.)
CEILEUR, ALBERT - - -	478	21st Feb. 1863	Apparatus for taking photographic impressions or likenesses by means of the camera.
CHADBURN, CHARLES HENRY	2288	17th Sept. 1863	Improvements in the construction of ships and other vessels, and in the machinery for propelling them.
CHADWICK, HENRY - - -	3168	15th Dec. 1863	Improvements in utilizing the waste liquors resulting from the preparation of fibrous matters in paper pulp making, and in the machinery or apparatus to be used therein.
CHAIRGRASSE, JEAN BAPTISTE	2279	17th Sept. 1863	Improved instruments for ascertaining levels, also for computing angles. (Patented by William Edward Gedge.)
CHALMERS, JAMES - - -	1364	1st June 1863	Armour for forts and floating batteries.
CHALMERS, JAMES - - -	2999	30th Nov. 1863	Guns and gun projectiles.
CHAMBERLAIN, HUMPHREY -	33	5th Jan. 1863	Improvements in generating and condensing steam and evaporating liquids, and in the apparatus employed therein.
CHAMBERS, WILLIAM - - -	2329	13th Nov. 1863	Machinery for beetling and finishing cloth.
CHAMPION, JAMES - - -	2552	19th Oct. 1863	Improvements in machinery or apparatus for preparing, spinning and doubling cotton, flax, wool and other fibrous materials.
CHANDLER, HENRY - - -	724	18th March 1863	Machinery for washing potatoes and other vegetables.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CHANDOR, LASSLO - - -	1257	19th May 1863	An improved mechanical lamp.
CHANDOR, LASSLO - - -	1259	19th May 1863	An improvement in lamps.
CHANGY, CHARLES CONSTANT [SIMONET DE.	2350	24th Sept. 1863	Improved machinery or apparatus for stirring or mixing various ingredients or materials to a pasty consistence, said machinery being especially adapted to the manufacture of bread and other articles of food. (Patented by Adolphe Ernest Ragon.)
CHAPA, JOSEPH - - -	1569	22nd June 1863	Apparatus for charging air or gases with combustible vapours. (Patented by William Clark.)
CHAPLIN, ALEXANDER - -	2281	17th Sept. 1863	Apparatus for propelling ships or vessels.
CHAPPAT, CHARLES - -	1036	25th April 1863	Manufacture of blue and violet coloring matters suitable for dyeing and printing.
CHAPPELL, JOHN - - -	81	9th Jan. 1863	Winding, warping, beaming or dressing machines.
CHAPUIS, FRANÇOIS - -	2256	14th Sept. 1863	Safety lamps for mines. (Patented by William Edward Gedge.)
CHARAGEAT, GABRIEL EMILE	1944	6th Aug. 1863	Construction of frames for umbrellas and parasols.
CHARLES, JEAN - - -	1406	5th June 1863	Smoothing irons. (Patented by John Henry Johnson.)
CHARLTON, ROBERT - -	2414	2nd Oct. 1863	Certain improvements in metallic bedsteads.
CHARPENTIER, AMÉDÉE PAULIN	2463	8th Oct. 1863	Manufacture of watches.
CHARPENTIER, PAULIN AMÉDÉE	2381	28th Sept. 1863	Improved apparatus for heating by means of illuminating gas. (Patented by William Edward Gedge.)
CHARRIÉ, JACQUES - -	1569	22nd June 1863	Apparatus for charging air or gases with combustible vapours. (Patented by William Clark.)
CHATEAU, THÉODORE - -	761	21st March 1863	Improvements in the separation or obtaining of ammonia from azoted matters in the preparation of manure. (Patented by William Clark.)
CHÂTEL, FRANÇOIS ALFRED -	2325	21st Sept. 1863	Burners for burning all mineral oils. (Partly communicated by Mr. François Morel.)
CHATTAWAY, EDWIN DANIEL	93	12th Jan. 1863	Railway signals.
CHATTAWAY, EDWIN DANIEL	1733	11th July 1863	Railway signals.
CHATTERTON, DAVID BANISTER	506	24th Feb. 1863	Improved brick making machinery.
CHATTERTON, JOHN - - -	1618	27th June 1863	Improvements in lining iron and other tubes and hollow vessels, and in manufacturing corrugated tubes of plastic materials.
CHAUDET, JEAN HENRI - -	803	27th March 1863	Machinery for scouring wool. (Patented by Richard Archibald Brooman.)
CHAUFOURIER, JULES ALFRED	1387	3rd June 1863	Machines for "ginning" cotton. (Patented by George Davies.)
CHAUMONT - - - -	1799	17th July 1863	An improved varnish for preserving metal and wood. (Patented by Richard Archibald Brooman.)
CHEASE, SYDNEY ARTHUR -	174	20th Jan. 1863	A new description of motive-power engine.
CHEASE, SYDNEY ARTHUR -	1706	9th July 1863	A new description of hydraulic engine for raising water and other fluids above their common level, the fluids so raised to be used as a motive-power.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CHEETHAM, JOHN - - -	1526	18th June 1863	Self-acting mules for spinning cotton and other fibrous materials.
CHEETHAM, WILLIAM THOMAS	323	5th Feb. 1863	Improvements in blowing organs and other such musical instruments, parts of which improvements are also applicable to obtaining motive-power for other purposes.
CHEETHAM, WILLIAM THOMAS	1770	15th July 1863	Obtaining hydraulic motive-power.
CHENAL, JOSEPH JULIEN -	370	11th Feb. 1863	Apparatus for drilling wood, stone, iron or other materials. (Patented by Edward Thomas Hughes.)
CHESSBROUGH, LEWIS REESE -	2545	17th Oct. 1863	An improved let off motion for looms. (Communicated by Silas Shepard.)
CHESSHIRE, EDWIN - - -	1118	5th May 1863	Apparatus for intercepting the solid portions of the soil of water-closets.
CHESTERMAN, JAMES - - -	2977	26th Nov. 1863	Frames for umbrellas and other like articles and petticoats or skirts.
CHEVY, VALENTIN, JR. - -	2804	11th Nov. 1863	An improved mode of ornamenting hats and bonnets. (Patented by Anne Catherine Durst-Wild.)
CHEZAND, LOUIS FRANÇOIS -	2306	19th Sept. 1863	Improvements in printing postage stamps, bankers' bills, shares and other similar documents, and in machinery employed therein.
CHICHESTER, LEWIS SCUDDER	1216	14th May 1863	Machinery for weighing grain.
CHICHESTER, LEWIS SCUDDER	1367	1st June 1863	Means for drying grain.
CHIDLEY, JOHN JAMES - -	2393	30th Sept. 1863	An improved bottle and stopper.
CHILD, JOHN WRIGHT - - -	139	15th Jan. 1863	Means or apparatus employed in spinning and weaving.
CHIRON, ANDRÉ - - - -	860	4th April 1863	Improved apparatus for bolting flour. (Patented by William Edward Gedge.)
CHIRON, JACQUES - - - -	860	4th April 1863	Improved apparatus for bolting flour. (Patented by William Edward Gedge.)
CHOLLET, LOUIS JOSEPH [MAXIMILIEN.]	1542	19th June 1863	Improvements in decorticating grain and seeds, and in the application of the products obtained by and materials used in decorticating. (Patented by Michael Henry.)
CHRISTEN, HENRY JEREMIE -	2306	19th Sept. 1863	Improvements in printing postage stamps, bankers' bills, shares and other similar documents, and in machinery employed therein.
CHRISTMAS, ELEAZAR - - -	1240	18th May 1863	Carriages for common roads.
CHRISTMAS, ELEAZAR - - -	2907	19th Nov. 1863	Carriages.
CHRISTOPLEAU, LOUIS - - -	787	26th March 1863	Improvements in fire-arms.
CLAES, JOSEPH - - - -	2615	23rd Oct. 1863	An improved apparatus for regulating the emission of gas. (Communicated by Pierre Alsina.)
CLAMAGERAN, JEAN GERMAIN [FELIX]	689	14th March 1863	An improved plough. (Patented by William Edward Gedge.)
CLAPAREDE, PAUL - - - -	2666	28th Oct. 1863	An improvement in clasps for portemonnaies, pocket books, bags and other like uses. (Patented by Henri Adrien Bonneville.)
CLAPHAM, ROBERT CALVERT -	987	17th April 1863	Treating the waste liquors from bleaching powder stills, in order to obtain hydrochloric acid and other products therefrom.
CLAPHAM, ROBERT CALVERT -	1638	1st July 1863	Manufacture of hyposulphite of soda, sulphite of soda and sulphite of lime.

[Cl.]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Cl.]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLAPP, WILLIAM HENRY -	1277	21st May 1863	An improved rail or holder for coats or other articles.
CLAPP, WILLIAM JOHN -	655	9th March 1863	Improved armour plates for vessels, turrets, targets, forts and other structures in which armour plates are or may be used.
CLARE, HYACINTHE -	387	13th Feb. 1863	Improved table apparatus for promoting the comfort of persons at sea. (Patented by William Edward Gedge.)
CLARIDGE, THOMAS -	1386	3rd June 1863	An improvement or improvements in the manufacture of spur wheels used in the construction of mill and forge gearing and for other like purposes.
CLARK, ALBERT HENRY -	1031	25th April 1863	Valves for water, steam and gas.
CLARK, ALEXANDER -	336	6th Feb. 1863	Knife-cleaning apparatus.
CLARK, ALEXANDER -	1803	18th July 1863	Improvements in revolving shutters and blinds, and in apparatus for the manufacture of the same.
CLARK, EDWARD RAWSON -	1168	9th May 1863	An improvement in the construction of portable wine cases or bins for domestic use or export, and a pic-nic chest combined.
CLARK, GEORGE -	1615	27th June 1863	Improvements in the construction of guns and projectiles, and of carriages, platforms and shields for working and protecting guns.
CLARK, GEORGE -	1929	5th Aug. 1863	Improvements in the construction and protection of ships, vessels and floating batteries, and in the preparation and arrangement of materials for those purposes, some of such improvements being applicable to the construction and protection of land fortifications.
CLARK, JAMES -	2984	27th Nov. 1863	Looms for weaving elastic fabrics.
CLARK, JAMES -	2985	27th Nov. 1863	Machinery or apparatus for cutting strips or threads of india-rubber or other materials.
CLARK, JOHN -	2117	27th Aug. 1863	Certain improvements in break blocks for railway and other carriages, and in the means of applying the same.
CLARK, WILLIAM -	58	7th Jan. 1863	Improved media for advertising. (Communicated by Antoine Masson.)
CLARK, WILLIAM -	95	12th Jan. 1863	Winding or copping frames. (Communicated by Jean Jacques Bourcart.)
CLARK, WILLIAM -	96	12th Jan. 1863	Carding-engines. (Communicated by Jean Jacques Bourcart.)
CLARK, WILLIAM -	97	12th Jan. 1863	Preparation of green coloring matter. (Communicated by Charles Jules Usèbe.)
CLARK, WILLIAM -	173	20th Jan. 1863	Looms for weaving textile fabrics. (Communicated by Andrew Naudain, James Peacock and William Henry Walton.)
CLARK, WILLIAM -	185	21st Jan. 1863	Preparing and obtaining photogenic pictures or representations. (Communicated by Adolphe Teissonnière.)
CLARK, WILLIAM -	186	21st Jan. 1863	Improvements in desiccating and, in preserving matters from decay. (Communicated by Jean Baptiste Pierre Camille Bergougnoux.)

[C1a]

ALPHABETICAL INDEX OF PATENTEES

[C1a]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, WILLIAM - - -	201	22nd Jan. 1863	An improvement in piston valves and other pistons. (Communicated by Thomas Shrimton Davis.)
CLARK, WILLIAM - - -	211	23rd Jan. 1863	Mariners' compasses. (Communicated by Georges Fabre.)
CLARK, WILLIAM - - -	221	24th Jan. 1863	Improvements in syphons applied to draining, irrigation and other purposes, whereby they self-suspend and resume action according to requirements. (Communicated by François Triballat.)
CLARK, WILLIAM - - -	256	28th Jan. 1863	Improvements in the means and apparatus for copying and reproducing sculpture and other objects of art. (Communicated by François Willème.)
CLARK, WILLIAM - - -	274	29th Jan. 1863	Improvements in the condensation of steam and in apparatus for the same. (Communicated by Amédée Mathurin Gabriel Sébillot.)
CLARK, WILLIAM - - -	299	2nd Feb. 1863	Armour plated and other ships.
CLARK, WILLIAM - - -	348	7th Feb. 1863	Improvements in the application of gas for the preparation of wood work generally and iron ships, for their better preservation and reception of paint or other protecting coating, and for disinfecting ships, hospitals and other places. (Communicated by Henri De Lapparent.)
CLARK, WILLIAM - - -	382	12th Feb. 1863	Bearing surfaces of shafts and other axles. (Communicated by Nicolas Bailly and Charles Durand.)
CLARK, WILLIAM - - -	406	14th Feb. 1863	Improvements in the method of and apparatus for separating the fibres of straw, wood and other vegetable substances, and extracting the gummy and coloring matters therefrom, to render them fit for paper stock or for other purposes. (Communicated by Azel Storrs Lyman.)
CLARK, WILLIAM - - -	467	20th Feb. 1863	An improvement in boilers for disintegrating and pulping vegetable substances. (Communicated by William Fittock Ladd and Samuel Armstrong Walsh.)
CLARK, WILLIAM - - -	468	20th Feb. 1863	Projectiles for ordnance. (Communicated by Charles Wesley Stafford.)
CLARK, WILLIAM - - -	514	24th Feb. 1863	Sewing-machines. (Communicated by Frederick William Grote and Claus Ortgiers Tietjen.)
CLARK, WILLIAM - - -	544	26th Feb. 1863	Improvements in the manufacture of buttons and in apparatus for the same. (Communicated by Achille Auguste Feldtrappe and René Dutfoy.)
CLARK, WILLIAM - - -	559	27th Feb. 1863	Improvements in pumping and forcing water and in apparatus for the same. (Communicated by Barthelemy Louvie.)
CLARK, WILLIAM - - -	586	2nd March 1863	Improvements in preparing and obtaining photographic impressions and in the application of such impressions. (Communicated by Alphonse Louis Poitevin.)

[Cla]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Cla]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, WILLIAM - - -	611	4th March 1863	Improvements in the manufacture of sulphuric acid and in apparatus for the same. (Communicated by Louis Désiré Verstraet and Charles Schmid.)
CLARK, WILLIAM - - -	628	5th March 1863	Fire-arms. (Communicated by Alexandre Guerriero.)
CLARK, WILLIAM - - -	677	12th March 1863	Breech-loading fire-arms. (Communicated by Charles Auguste Canalon.)
CLARK, WILLIAM - - -	761	21st March 1863	Improvements in the separation or obtaining of ammonia from azoted matters in the preparation of manure. (Communicated by Lucien Henry Blanchard and Théodore Chateau.)
CLARK, WILLIAM - - -	767	23rd March 1863	Agricultural apparatus. (Communicated by Jean Baptiste Décours, Athanase Charles Le Lavandier and Pierre Edouard Lambert.)
CLARK, WILLIAM - - -	805	27th March 1863	Winding or copping frames. (Communicated by Jean Jacques Bourcart.)
CLARK, WILLIAM - - -	839	1st April 1863	Improvements in preventing fermentation in alcoholic and other liquids while drawing them from their containing vessels, and in apparatus for the same. (Communicated by Charles Pierre Laurens, Adolphe Peret and François de Trégo-main.)
CLARK, WILLIAM - - -	920	11th April 1863	Improvements in separating ores from their gangues and in apparatus for the same. (Communicated by Louis Napoléon Langlois.)
CLARK, WILLIAM - - -	946	15th April 1863	Apparatus for the transport of goods. (Communicated by Paulin Gay.)
CLARK, WILLIAM - - -	1004	22nd April 1863	Means of obtaining publicity. (Communicated by Louis Jean Delton.)
CLARK, WILLIAM - - -	1011	23rd April 1863	Improvements in the manufacture of tiles and in apparatus for the same. (Communicated by Pierre François Boulet.)
CLARK, WILLIAM - - -	1064	28th April 1863	Improvements in machinery for the manufacture of paper and of the various kinds of boards produced from fibrous substances. (Communicated by John Franklin Jones.)
CLARK, WILLIAM - - -	1089	30th April 1863	Manufacture of hydrocyanite of ammonia and of alkaline and earthy cyanides. (Communicated by Louis Joseph Frédéric Margueritte.)
CLARK, WILLIAM - - -	1156	8th May 1863	Coating wrought or other iron to protect it from corrosion or oxydation. (Communicated by George Washington Holley.)
CLARK, WILLIAM - - -	1223	15th May 1863	Repeating fire-arms. (Communicated by Oliver Fisher Winchester.)
CLARK, WILLIAM - - -	1233	16th May 1863	Rotary engines. (Communicated by Adrien Jules Alexis Dumoulin.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, WILLIAM - - -	1320	25th May 1863	Apparatus for ruling paper and other materials either alone or in combination with typographical or lithographical printing. (Communicated by Bonaventure Tournier.)
CLARK, WILLIAM - - -	1329	27th May 1863	Offensive and defensive arms. (Communicated by Celestin Dumonthier.)
CLARK, WILLIAM - - -	1362	30th May 1863	Manufacture of manure. (Communicated by Alfred François Moselman.)
CLARK, WILLIAM - - -	1365	1st June 1863	Apparatus for printing fabrics, papers and other surfaces in colors. (Communicated by Joseph Saraglia.)
CLARK, WILLIAM - - -	1405	5th June 1863	Improvements in the distillation and separation of hydrocarburets and their derivatives, and in apparatus for the same. (Communicated by Jean Théodore Cospier.)
CLARK, WILLIAM - - -	1415	8th June 1863	Mounting and fitting bedsteads, chairs and other moveable seats on board ship. (Communicated by Herman Hoback and Martin Henri Rumpf.)
CLARK, WILLIAM - - -	1416	8th June 1863	A new and useful device for turning cross head wrists or pins, or for turning any cylindrical part of machinery which is secured between two arms. (Communicated by Walter Scott Phelps.)
CLARK, WILLIAM - - -	1447	10th June 1863	Improvements in locomotive apparatus which is also applicable to other purposes. (Communicated by Casimir Noël.)
CLARK, WILLIAM - - -	1449	11th June 1863	Improvements in obtaining and applying motive-power and in apparatus for the same. (Communicated by Antoine Merlanckon.)
CLARK, WILLIAM - - -	1499	15th June 1863	Certain improvements in engines for obtaining motive-power from steam or other liquid, also partly applicable to pumps. (Communicated by John Benjamin Root.)
CLARK, WILLIAM - - -	1559	20th June 1863	Treatment of broom for the manufacture of paper pulp. (Communicated by Louis Alexandre Joseph Deplanque.)
CLARK, WILLIAM - - -	1569	22nd June 1863	Apparatus for charging air or gases with combustible vapours. (Communicated by Joseph Chapa and Jacques Charrié.)
CLARK, WILLIAM - - -	1609	26th June 1863	Apparatus for aerating liquids. (Communicated by Frederic Jean Greffier and Paul Dyé.)
CLARK, WILLIAM - - -	1771	15th July 1863	An improved process for making paper transparent and transferring designs. (Communicated by Henry Loewenberg and Henry Schoonmaker.)
CLARK, WILLIAM - - -	1848	23rd July 1863	Saddles. (Communicated by Jean Etienne Pohl.)
CLARK, WILLIAM - - -	1942	6th Aug. 1863	Ovens. (Communicated by Jacques Blondel.)
CLARK, WILLIAM - - -	1943	6th Aug. 1863	Taps or stop cock apparatus. (Communicated by François Jean Cetagrel.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, WILLIAM - - -	1982	11th Aug. 1863	Road sweeping machines. (Communicated by Jean Baptiste Tailfer.)
CLARK, WILLIAM - - -	1996	12th Aug. 1863	An improved lamp for burning coal oil and other similar hydro-carbons without the aid of a draught chimney. (Communicated by Woolsey George Sterling and Nathaniel Wheeler.)
CLARK, WILLIAM - - -	2159	1st Sept. 1863	Hydraulic apparatus. (Communicated by Auguste Desgoffe and Achille Ollivier.)
CLARK, WILLIAM - - -	2222	9th Sept. 1863	Means of utilizing refuse azoted matters of commerce for the manufacture of various chemical products. (Communicated by Amédée Gélis and Lucien Dusart.)
CLARK, WILLIAM - - -	2284	10th Sept. 1863	Purification and disinfection of hydro-carburets and especially of oils produced by the distillation of coal schist and bog-head. (Communicated by Jean Eugene D'Arcet.)
CLARK, WILLIAM - - -	2250	12th Sept. 1863	Revolving fire-arms. (Communicated by Thomas Jefferson Vail.)
CLARK, WILLIAM - - -	2370	26th Sept. 1863	An improved fabric for the production of permanent electricity, applicable for wearing-apparel. (Communicated by Théodore Courant.)
CLARK, WILLIAM - - -	2389	29th Sept. 1863	An improvement in the soles of boots and shoes. (Communicated by Theodore Gustav Eiswald.)
CLARK, WILLIAM - - -	2394	30th Sept. 1863	Musical instruments. (Communicated by Louis Etienne Dorgal, Jules François Guesné and François Coré.)
CLARK, WILLIAM - - -	2542	17th Oct. 1863	Rotary engines. (Communicated by George Bradford MacFarland.)
CLARK, WILLIAM - - -	2544	17th Oct. 1863	Sewing and embroidering machines. (Communicated by Antoine Bonnaas.)
CLARK, WILLIAM - - -	2558	19th Oct. 1863	Improvements in separating ores from their gangues and in apparatus for the same. (Communicated by Jean Joseph Bonnard.)
CLARK, WILLIAM - - -	2772	7th Nov. 1863	An improvement in sewing-machines. (Communicated by Jerome Burge Secor and William Henry Butler.)
CLARK, WILLIAM - - -	3015	1st Dec. 1863	Apparatus for lighting and heating. (Communicated by Bernard Subra.)
CLARK, WILLIAM - - -	3115	10th Dec. 1863	Certain improvements in port closers for vessels of war and forts. (Communicated by William Stuart Auchincloss.)
CLARK, WILLIAM - - -	3186	17th Dec. 1863	Apparatus for indicating the level of water in steam-boilers. (Communicated by Charles Weyher.)
CLARK, WILLIAM - - -	3216	21st Dec. 1863	Improvements in machinery or apparatus for rolling roads, which is also applicable to traction engines and other similar purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLARK, WILLIAM - - -	3250	23rd Dec. 1863	Improvements in percussion fuzes for igniting the charges of explosive projectiles, mines, torpedoes and other charges of gunpowder or other explosive or easily inflammable substances or compounds. (Communicated by John Jordan Eckel.)
CLARK, WILLIAM - - -	3279	28th Dec. 1863	Slide valves. (Communicated by Louis Amédée Lemaire.)
CLARK, WILLIAM - - -	3280	28th Dec. 1863	Improvements in the manufacture of purses, bags and other similar articles, and in fastenings for the same. (Communicated by Ignatz Lindenblith.)
CLARK, WILLIAM STEPHENS -	938	14th April 1863	Sewing-machines.
CLARKE, EDWIN FRANCIS -	847	2nd April 1863	Means of fastening rails for railways.
CLARKE, JAMES LANGTON -	1551	20th June 1863	Apparatus for turning over the leaves of music and other books.
CLARKE, RICHARD - - -	2369	26th Sept. 1863	A new application of material for covering "crinolines" and in the manufacture of the said material.
CLARKE, THOMAS ALFRED [WILLIAM.]	961	16th April 1863	An improved construction of shuttle driver and apparatus for working the same.
CLARKE, WILLIAM - - -	1724	10th July 1863	Manufacture of ornamental lace.
CLARKE, WILLIAM - - -	1822	21st July 1863	Manufacture of fabrics in twist lace machinery.
CLARKE, WILLIAM - - -	3190	18th Dec. 1863	Manufacture of ropes made of hemp or other fibrous substances.
CLARKSON, THOMAS CHARLES	2579	21st Oct. 1863	Improvements in the manufacture of saddles and harness, and in materials for and in ornamenting the same, which improvements are applicable for parts of carriages, dress and coverings for the head, and other articles.
CLAVEL, CHARLES ADOLPHE -	1010	23rd April 1863	An improved mode of repairing worn out files and rendering them again fit for use. (Patented by William Edward Newton.)
CLAY, CHARLES - - -	630	5th March 1863	Chain harrows.
CLAY, JOHN - - -	499	24th Feb. 1863	Manufacture of saddles.
CLAYTON, HENRY - - -	2526	15th Oct. 1863	Buildings used for drying bricks, tiles and other articles.
CLAYTON, HENRY - - -	3199	18th Dec. 1863	Machinery for manufacturing bricks.
CLAYTON, NATHANIEL - -	191	21st Jan. 1863	Rotatory screens suitable for screening wheat and other grain or seed.
CLAYTON, NATHANIEL - -	270	29th Jan. 1863	Thrashing machines.
CLAYTON, THOMAS - - -	3138	12th Dec. 1863	Generators for making gas from volatile fluids.
CLEGG, JOHN - - -	757	21st March 1863	Looms for weaving.
CLEGG, JOSEPH - - -	3306	31st Dec. 1863	Certain improvements in the manufacture or weaving of piled fabrics.
CLEGG, THOMAS - - -	2197	7th Sept. 1863	Machinery for preparing and spinning cotton and other fibrous substances.
CLÉMENT, ACHILLE - -	578	2nd March 1863	Improvements in cloth blankets and other fabrics to be used in machinery for printing fabrics, paper-hangings and letter-press. (Patented by Frederick Tolhausen.)
CLEMINSON, WILLIAM - -	2340	23rd Sept. 1863	Construction of pipe wrenches.

Cle]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Coc

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CLEMM, DOCTOR CHRISTIAN [GUSTAV.	1776	15th July 1863	New employment of magnesia and its combinations in manufactures.
CLENCH, JOHN - - -	3168	15th Dec. 1863	Improvements in utilizing the waste liquors resulting from the preparation of fibrous matters in paper pulp making, and in the machinery or apparatus to be used therein.
CLIFF, JOHN - - -	3129	11th Dec. 1863	Apparatus for transmitting motive-power.
CLIFF, JOHN - - -	3130	11th Dec. 1863	Lamps for burning hydro-carbons.
CLIFTON, EDWARD - - -	2647	26th Oct. 1863	Improvements in the manufacture of brushes used in machines employed for preparing and combing wool, cotton, silk and other fibrous substances.
CLIFTON, EDWARD - - -	3074	7th Dec. 1863	Improvements in or applicable to machinery for preparing and combing wool and other fibrous substances. *
CLIFTON, RICHARD LUMLEY -	3032	2nd Dec. 1863	Apparatus used for brewing.
CLINTON, JOHN - - -	617	5th March 1863	Construction of flutes.
CLISSOLD, WILLIAM - - -	1097	1st May 1863	Improved apparatus for fulling woollen cloths and washing and cleansing woven fabrics.
CLISSOLD, WILLIAM - - -	2808	11th Nov. 1863	Improvements applicable to machinery for opening, cleaning, preparing and carding wool and other fibrous substances.
CLOUGH, CHARLES BUTLER -	28	3rd Jan. 1863	Apparatus for curing smoky chimneys.
CLOUGH, SAMUEL WESLEY -	423	16th Feb. 1863	Signalling on railways.
CLOUGH, WILLIAM - - -	2232	10th Sept. 1863	Improvements in glazing and rolling press papers, pasteboard and other paper requiring to be glazed or rolled, and in the means or apparatus employed therein.
CLOW, HENRY - - -	2693	30th Oct. 1863	Ovens.
CLYDE, JACKSON - - -	664	11th March 1863	Dry gas-meters.
COANNET, EUGENE - - -	2052	18th Aug. 1863	Manufacture of hats, caps and bonnets, and in apparatus employed therein. (Patented by Richard Archibald Brooman.)
COATES, CHARLES - - -	2751	6th Nov. 1863	Certain improvements in machinery for printing cotton and other fabrics.
COATS, NATHANIEL - - -	655	9th March 1863	Improved armour plates for vessels, turrets, targets, forts and other structures in which armour plates are or may be used.
COBB, JONATHAN DARWIN -	40	6th Jan. 1863	Automatic walking dolls and other figures. (Communicated by John Bently Munn.)
COCHERY, LOUIS ADOLPHE -	2731	4th Nov. 1863	Certain improvements in the manufacture of manure.
COCHRAN, SAMUEL BEACH -	1126	5th May 1863	Improvements in sewing-machines and in apparatus connected therewith.
COCHRAN, SAMUEL BEACH -	3020	1st Dec. 1863	Improvements in sewing-machines and in apparatus connected therewith.
COCHRANE, ARTHUR AUCK- [LAND LEOPOLD PEDRO.	2780	9th Nov. 1863	Propelling and steering ships.
COCHRANE, HENRY - - -	2683	30th Oct. 1863	Improvements in surface condensers, also applicable to the refrigeration or cooling of fluids.
COCHRANE, JOHN - - -	3110	10th Dec. 1863	Improvements in presses for bending metal plates into the various forms required in naval architecture and for other purposes. (Patented by William Galloway and John Galloway.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COCHRANE, THOMAS BARNES -	3296	30th Dec. 1863	Improvements in the production of hydro-carbon and other oils from gas tar, coal tar, gas pitch, asphalt, coal and other bituminous substances.
COCKER, HENRY HOOTON -	549	27th Feb. 1863	Improvements in spinning, doubling, throwing and reeling silk, and in the machinery employed therein.
COCKER, JAMES - - -	280	30th Jan. 1863	An improved turnstile especially applicable to omnibuses and other vehicles to shew or indicate the number of passengers that have been carried.
COCKERELL, MAURICE - -	1870	28th July 1863	The treatment of mortice and other door locks and latches.
COE, ERNEST OSWALD - -	831	31st March 1863	Propellers for ships and other vessels.
COENEN, RICHARD - - -	1801	17th July 1863	Machinery for winding, measuring and sizing silk. (Communicated by Emile Duseigneur.)
COFFEY, JOHN AMBROSE -	554	27th Feb. 1863	An improved method of and apparatus for controlling and facilitating locomotion whether on land or on water.
COHEN, BARNET SOLOMON -	599	3rd March 1863	Apparatus for protecting the points of pencils.
COIGNARD, JOSEPH - - -	1262	20th May 1863	Certain improvements in sewing-machines.
COIGNARD, LOUIS - - -	1324	26th May 1863	Apparatus for raising, forcing and moving fluids. (Patented by Michael Henry.)
COIGNET, FRANÇOIS - - -	1086	29th April 1863	Improvements in apparatus for manufacturing beton and artificial stone, pugging clay and other similar purposes, and in the production of artificial stone and artistic ornamental and decorative articles, works and surfaces. (Patented by Michael Henry.)
COLBURN, ZERAH - - -	2588	21st Oct. 1863	Steam-engines.
COLE, HENRY JAMES - - -	1890	30th July 1863	Fastenings for packing-cases.
COLE, JAMES - - - -	1644	1st July 1863	Looms for weaving.
COLE, JAMES, JR. - - -	1644	1st July 1863	Looms for weaving.
COLE, PERCY ADDISON - -	212	23rd Jan. 1863	Improvements in the articles of dress known as collars, cuffs, wristbands, shirt-fronts, habit shirts and petticoats.
COLE, SAMUEL - - - -	1631	30th June 1863	Improvements in clasps or fastenings for securing brooches, solitaires and other dress ornaments.
COLE, SAMUEL - - - -	3269	24th Dec. 1863	Improvements in the manufacture of bracelets and other ornaments formed of paper or papier mâché or other similar material.
COLE, WILLIAM - - - -	1840	23rd July 1863	Apparatus for securing the safety of persons in window cleaning or otherwise working outside of windows.
COLE, WILLIAM HENRY - -	3103	9th Dec. 1863	An invention, firstly, for casting steam cylinders of steam-engines in the form of a segment of a cylindrical ring or circle, and secondly, for the machine for boring them truly cylindrical and retaining the line of the bore on the curve of a true circle. (Communicated by Samuel Woodruff and Henry B. Beach.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COLES, COWPER PHIPPS - - -	1637	1st July 1863	An improved method of and apparatus for working guns in vessels and forts, and discharging them under water.
COLES, GEORGE - - -	749	20th March 1863	Machines or apparatus for washing and wringing cloths or fabrics.
COLL, DUNCAN Mc - - -	898	9th April 1863	Preventing the escape of fumes and matters from furnaces.
COLLIER, ELIZABETH - - -	2168	2nd Sept. 1863	Crinolines and crinoline fastenings.
COLLING, JOHN - - -	2910	19th Nov. 1863	Apparatus for reefing and furling ships' square sails.
COLLINGE, DANIEL - - -	80	9th Jan. 1863	Improvements in machinery or apparatus for cleaning and preparing cotton or other fibrous materials to be spun.
COLLINGE, DANIEL - - -	569	28th Feb. 1863	Machinery or apparatus for cleaning, steaming and preparing cotton or other fibrous materials to be spun.
COLLINGRIDGE, AUGUSTUS -	2347	23rd Sept. 1863	Manufacture of casks and other receptacles for containing oil, petroleum and other liquids.
COLLINS, CHARLES ATKINS -	923	11th April 1863	An improved method and apparatus for loading carts and waggons with hay, straw and other similar products.
COLLINS, FREDERICK WOOLCOT	3205	19th Dec. 1863	A certain improvement in apparatus for training hops.
COLLYER, GEORGE - - -	282	30th Jan. 1863	Couplings for railway carriages. (Patented by William Edward Newton.)
COLLYER, GEORGE CLAYTON -	1680	6th July 1863	Treatment of cut tobacco for its better preservation.
COLLYER, ROBERT HANHAM -	1	1st Jan. 1863	Improvements in the method of and apparatus for preparing materials for the manufacture of paper and similar purposes, part of the invention being also applicable to other operations in which materials are subjected to the action of hot agents.
COLOMB, GUSTAVE - - -	905	10th April 1863	A process of manufacturing factitious blocks of wood of diversified shades and hues, proper for veneering and other purposes.
COLQUHOUN, EWING PYE -	944	15th April 1863	Fire bars for the furnaces of steam-boilers and fire grates.
COLQUHOUN, EWING PYE -	2517	14th Oct. 1863	Improvements in fire bars for the furnaces of steam-boilers and the mode of mounting the same.
COLSON, MELCHIOR - - -	2110	26th Aug. 1863	Improved apparatus for extracting coal, ores or other minerals or substances from mines, which apparatus may be also employed for raising and lowering the workmen and their tools or implements. (Patented by William Edward Newton.)
COLYER, JOSEPH - - -	2905	19th Nov. 1863	Mode of and apparatus for stopping or closing orifices in casks and other vessels.
COMB, DAVID Mc - - -	1390	3rd June 1863	Improvements in the construction of presses for forming bales of cotton and other materials, and in the construction of fastenings for and means for applying bands to such bales. (Patented by James Jennings McComb.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COMB, JAMES JENNINGS MC -	1390	3rd June 1863	Improvements in the construction of presses for forming bales of cotton and other materials, and in the construction of fastenings for and means for applying bands to such bales. (Partly communicated by David McComb.)
COMBE, JOHN - - -	153	17th Jan. 1863	Machinery for spreading, drawing and carding flax and other fibrous substances.
COMBE, JOHN - - -	937	14th April 1863	Improvements in the action and arrangement of machines for winding cops, in the construction and arrangement of banks for holding cops for warping purposes, in the formation of shuttles for receiving cops, and for apparatus for packing and securing cops in shuttles, one part of which improvements consisting of a spring clutch is applicable to machines in general.
COMTE, ANTOINE - - -	224	24th Jan. 1863	Looms for weaving ribbons. (Patented by Frederick Tolhausen.)
CONISBEE, WILLIAM - -	254	28th Jan. 1863	Cylindrical chromo-lithographic printing machines.
CONLONG, JAMES - - -	3056	5th Dec. 1863	Machinery or apparatus for opening, cleaning and preparing cotton and other fibrous materials to be spun.
CONNELL, JAMES EDWARD MC	1186	11th May 1863	Chains for cables and other purposes.
CONNELL, JAMES EDWARD MC	1191	12th May 1863	Treating worn out railway tyres.
CONNELL, JAMES EDWARD MC	1203	13th May 1863	Manufacture of thick plates of wrought iron for armour plates and other purposes.
CONNELLY, JOSEPH HAYS -	864	6th April 1863	Wicks for lamps. (Patented by Frederick Collier Bakewell.)
CONNICK, LOUIS JEAN GUS- TAVE DE.	262	29th Jan. 1863	Construction of granaries. (Patented by Henri Adrien Bonneville.)
CONNOLLY, JOHN - - -	1397	4th June 1863	Construction of casks, barrels, kegs and other analogous articles.
CONRAETZ, WILHELM - -	723	18th March 1863	Manufacture of spoons and forks. (Patented by Richard Archibald Brooman.)
COOK, HENRY - - -	768	24th March 1863	Improvements in the arrangement and construction of apparatus for transmitting electric currents and signals for telegraphic purposes. (Partly communicated by Gaetano Bonelli.)
COOK, HENRY - - -	2063	19th Aug. 1863	An improved mode of and apparatus for producing by the aid of photography optical illusions of moving animals and bodies.
COOK, HENRY OCEANUS -	249	28th Jan. 1863	Improvements in propelling ships and vessels and in apparatus employed therein.
COOK, JOHN MASON - -	2297	18th Sept. 1863	Railway carriages and all other springed vehicles.
COOKE, ARTHUR JOHN - -	775	24th March 1863	Portable "Hooka" pipes.
COOKE, DAVID JAMES - -	893	9th April 1863	Improved compounds or compositions for sizing, stiffening and coloring yarns and textile fabrics.
COOKE, FREDERICK - -	661	11th March 1863	Certain improvements in the manufacture of hats or coverings for the head.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COOKE, JOHN THOMAS - -	1757	14th July 1863	Improvements in and connected with batterns for driving shuttles from side to side of their work in weaving.
COOKE, SAMUEL JOHN - -	1677	6th July 1863	Apparatus for supplying carbonic acid gas to casks or other vessels containing beer or other fermented liquid. (Communicated by James Harrison.)
COOKE, WILLIAM - - -	2589	21st Oct. 1863	Manufacture of saponaceous compounds.
COOMBS, ISAAC - - -	3214	21st Dec. 1863	Construction of machines for cutting and bending wire and similar substances for copper smiths, tin plate, iron and zinc sheet workers.
COOPER, BENJAMIN - - -	865	6th April 1862	Improved apparatus for feeding scribbling or carding-engines.
COOPER, JOHN - - -	2391	29th Sept. 1863	Construction of harrows.
COOPER, JOHN ALEXANDER -	33	5th Jan. 1863	The application of a fibre obtained from a certain plant as a substitute or to be used with silk, cotton, flax and such like materials, which fibre has not hitherto been applied to any of those purposes, and for certain methods of preparing the same for such purposes.
COOPER, JOSEPH ROCK - -	1755	14th July 1863	Sights for rifles and other fire-arms.
COOPER, JOSEPH ROCK - -	2867	18th Nov. 1863	Improvements in the manufacture of barrels for fire-arms and in machinery to be used in the said manufacture.
COOPER, SAMUEL AYLETT -	1780	16th July 1863	An improved packing case to contain bottled beer, wine or any other liquid in bottle.
COOPER, WILLIAM TYNDON -	346	7th Feb. 1863	Distilling apparatus.
COPE, DAVID - - -	2933	21st Nov. 1863	Manufacture of metallic drums, kegs, casks and like cylindrical packages.
COPE, THOMAS - - -	1493	15th June 1863	Construction of rocking horses and giving additional motion thereto. (Communicated by William Hignett.)
COPPIN, WILLIAM - - -	39	5th Jan. 1863	Machinery for clearing and separating the woody parts from the fibrous portion of flax, hemp or other like material.
COQUET, DESIRE GEORGE MA- [THIEU.	3300	30th Dec. 1863	Improved toys.
CORBETT, JOHN - - -	3048	4th Dec. 1863	A combined hot water and hot air stove.
CORBY, JOHN - - -	3123	11th Dec. 1863	Centrifugal machines for extracting the syrups from sugar.
CORDES, HENRY CHRÉTIEN -	246	28th Jan. 1863	Improved machinery or apparatus for fastening by screws boots, shoes and other articles composed of leather. (Patented by William Edward Gedge.)
CORDILLOT, HONORÉ - - -	3045	4th Dec. 1863	Process or processes of producing aniline black on cotton fabrics or yarns. (Patented by Edward Joseph Hughes.)
CORDON, CHARLES - - -	2991	28th Nov. 1863	Means or apparatus for supplying water to water-closets and urinals.
CORE, FRANÇOIS - - -	2394	30th Sept. 1863	Musical instruments. (Patented by William Clark.)
CORLETT, CHARLES HARVEY -	2170	2nd Sept. 1863	Valves, taps or cocks.
CORMACK, WILLIAM - - -	1295	23rd May 1863	Improvements in the distillation of coal tar, tar, oil, resin, resin oils, all hydro-carbons, petroleum or other mineral or vegetable oils and spirits derived therefrom.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CORMICK, CYRUS HALL Mc -	2055	18th Aug. 1863	Reaping machines.
CORMIER, JULES JEAN - -	3299	30th Dec. 1863	An improved apparatus to be attached to locomotive engines for the purpose of removing obstructions from railways.
CORNEAU, ALFRED - - -	368	11th Feb. 1863	An improved hot air stove.
CORNELIUS, ROBERT - -	983	20th April 1863	Lamps. (Patented by William Edward Newton.)
CORNES, JOHN - - -	1022	24th April 1863	Lawn mowing, rolling and collecting machines.
CORNFORTH, JOHN - - -	1988	12th Aug. 1863	Improvements in the nails commonly called screw rivets, which improvements are also applicable to other nails and spikes.
CORONEL, ABRAHAM, Sen. -	2662	28th Oct. 1863	An improved preparation of tobacco for fumigating purposes.
COTELLE, EUGENE ALPHONSE	1924	4th Aug. 1863	A new method of manufacturing gas alcohol by means of diluted acids acting indefinitely without reconcentration.
COTTAIS, ALEXANDRE - -	879	7th April 1863	Improvements in reproducing or obtaining facsimiles of the veins, pores, knots and figures of wood, upon paper and other surfaces. (Patented by Richard Archibald Brooman.)
COTTAM, GEORGE HALLEN -	1375	2nd June 1863	Bricks suitable for being used for paving stables and other places.
COTTON, WILLIAM - - -	1901	1st Aug. 1863	Improvements in the manufacture of looped fabrics and in machinery or apparatus employed therein.
COUCHMAN, RICHARD - -	743	20th March 1863	Improvements in articles or means for supporting or carrying ladies' parasols, bags or other articles or appendages.
COUCHMAN, RICHARD - -	2309	19th Sept. 1863	Articles or instruments for supporting, holding or carrying parasols, bags, watches, ornaments or other articles or appendages.
COULDERY, THOMAS WILLIAM	1675	6th July 1863	Improved means of attaching boxes or receptacles to hold soap, black lead or similar household articles, to the sides of wash tubs, pails or house boxes.
COULTER, HENRY - - -	1213	14th May 1863	Wicks for oil and other fluid burning lamps. (Patented by John Thomson King.)
COULTER, HENRY - - -	1742	13th July 1863	Burners of hydro-carbon and other fluid burning lamps.
COULTHARD, HIRAM CRAVEN	1331	27th May 1863	Blast engines.
COULTHARD, HIRAM CRAVEN	1371	1st June 1863	Improvements in packing for the glands of piston rods and other moving mechanism where it is necessary to prevent the passage of steam or other fluids.
COUPERIE, SAINTE AURE -	906	10th April 1863	A semicircular metallic slide whereby the pole bolt is effectually suppressed and which can be adapted to every four-wheeled vehicle.
COUPIER, JEAN THÉODORE -	1405	5th June 1863	Improvements in the distillation and separation of hydrocarburets and their derivatives, and in apparatus for the same. (Patented by William Clark.)
COURANT, THÉODORE - -	2370	26th Sept. 1863	An improved fabric for the production of permanent electricity, applicable for wearing-apparel. (Patented by William Clark.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
COURTENAY, JOSCELINE - -	573	28th Feb. 1863	Obtaining motive-power. (Communicated by Reginald Courtenay.)
COURTENAY, REGINALD - -	573	28th Feb. 1863	Obtaining motive-power. (Patented by Josceline Courtenay.)
COURTNEY, GEORGE HENRY -	2851	14th Nov. 1863	Tills or receptacles for money.
COUTTS, WILLIAM - - -	2185	4th Sept. 1863	Furnaces.
COUTURIER, CHARLES EDMOND [FRANÇOIS.	231	26th Jan. 1863	Petticoats or crinolines. (Patented by Richard Archibald Brooman.)
COWAN, PHINEAS - - -	2282	17th Sept. 1863	An improvement in refining sugar.
COWAN, WILLIAM - - -	2878	17th Nov. 1863	Gas meters.
COWDERY, GEORGE - - -	789	26th March 1863	Machinery for making bricks.
COWLEY, JAMES - - -	647	9th March 1863	Machinery or apparatus for manufacturing bricks, tiles, pipes and mouldings.
COWPER, EDWARD ALFRED -	1376	2nd June 1863	Presses.
COWPER, EDWARD ALFRED -	1912	3rd Aug. 1863	Self-acting mules for spinning.
COWPER, EDWARD ALFRED -	1928	5th Aug. 1863	Furnaces for heating air, steam and other elastic fluids.
COX, GEORGE - - - -	449	18th Feb. 1863	Improved appliances for displaying in the open air or indoors illuminated designs, devices, mottoes or announcements, and in which jets of gas are employed as the illuminating agent.
COX, GEORGE ADDISON - -	852	2nd April 1863	Treatment or preparation and manufacture of jute, hemp, flax and other fibrous or textile materials.
COX, JOHN - - - -	715	17th March 1863	Improvements in swimming baths and in apparatus for swimming, part of which apparatus is applicable to sailing or moving vessels in a circle.
COX, JOHN - - - -	2267	16th Sept. 1863	Swings.
COX, JONATHAN - - - -	2531	16th Oct. 1863	Improved apparatus for boring and cleaving stone.
CRABTREE, CHARLES - - -	2983	27th Nov. 1863	Manufacture of paper spool tubes.
CRABTREE, JAMES - - -	2243	11th Sept. 1863	Looms for weaving.
CRABTREE, SAMUEL - - -	1061	28th April 1863	Balling motions.
CRABTREE, WILLIAM - - -	55	7th Jan. 1863	An improved mode of perching and dressing textile fabrics during the process of weaving.
CRACHI, MARTIN - - - -	1301	23rd May 1863	Improvements in indicating the position of trains upon railways and in apparatus employed therein. (Patented by Richard Archibald Brooman.)
CRAIG, ANDREW - - - -	2812	12th Nov. 1863	Improvements in distilling hydro-carbons from coal shale and other bituminous substances, and in apparatus employed for that purpose.
CRAIG, HENRY GRIFFITH -	1604	25th June 1863	Machinery for manufacturing or preparing iron and other metal plates for shipbuilding and other purposes.
CRAIG, JAMES - - - -	613	4th March 1863	Apparatus for detecting and detaining thieves and indicating the presence of fire.
CRAIG, WILLIAM GRINDLEY -	1098	1st May 1863	Feed apparatus for steam-boilers. (Communicated by Michel Turck.)
CRAMER, JAMES A. - - -	451	19th Feb. 1863	Improved axle-boxes for carriages or vehicles. (Patented by Richard Percy Roberts.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CRANSTON, WILLIAM MCINTYRE	3095	8th Dec. 1863	Reaping and mowing machines. (Communicated by William Anson Wood.)
CRAVEN, GREENWOOD - -	2735	5th Nov. 1863	Improvements in machinery for cutting and planing iron and other metals, particularly applicable to machinery for cutting and planing armour plates.
CRAVEN, JOHN - - -	2595	22nd Oct. 1863	Machinery or apparatus for punching, shearing and burnishing.
CRAVEN, JOHN - - -	2735	5th Nov. 1863	Improvements in machinery for cutting and planing iron and other metals, particularly applicable to machinery for cutting and planing armour plates.
CRAVEN, THOMAS COWELL -	2511	13th Oct. 1863	Cotton gins
CRAVEN, WILLIAM - - -	2735	5th Nov. 1863	Improvements in machinery for cutting and planing iron and other metals, particularly applicable to machinery for cutting and planing armour plates.
CRAWFORD, ROBERT - -	1381	2nd June 1863	Jacquard machines used for weaving ornamental fabrics.
CREASE, EDWARD SMITH -	2624	24th Oct. 1863	Machinery for drilling, boring or excavating rock or other earthy substances.
CREGUT, GUILLAUME -	2078	21st Aug. 1863	Improvements in expressing and filtering oil from seeds and liquids from other substances containing the same, and in apparatus employed therein. (Patented by Richard Archibald Brooman.)
CREIGHTON, JOHN - - -	1413	8th June 1863	Certain improvements in machinery or apparatus for winding yarns or threads.
CREIGHTON, JOHN - - -	2979	27th Nov. 1863	Certain improvements in machinery or apparatus for winding yarns or threads.
CREIGHTON, JOSEPH - -	1413	8th June 1863	Certain improvements in machinery or apparatus for winding yarns or threads.
CREIGHTON, JOSEPH - -	2979	27th Nov. 1863	Certain improvements in machinery or apparatus for winding yarns or threads.
CRELLIN, ALEXANDER - -	2514	13th Oct. 1863	Improvements in apparatus applicable to omnibuses, in order to indicate the number of persons entering such vehicles and the distances travelled by the passengers.
CRELLIN, JAMES - - -	2246	12th Sept. 1863	Apparatus for governing and stopping the flow or passage of fluids.
CRESPY, PIERRE BÉLISAIRE -	1328	27th May 1863	Manufacture of soap.
CRICHEY, HENRY - - -	260	28th Jan. 1863	Reaping and mowing machines. (Communicated by Robert Bodington.)
CRICHEY, HENRY - - -	2244	11th Sept. 1863	Stove grates and kitchen ranges.
CRICHTON, DAVID - - -	721	18th March 1863	Looms for weaving.
CRISPIN, SILAS - - -	1881	29th July 1863	Cartridges. (Patented by William Edward Newton.)
CRISTEN, HENRI JERIMIE -	2684	30th Oct. 1863	Taps, cocks or valves. (Patented by Walter Montgomerie Neilson.)
CROASDALE, BENJAMIN - -	194	22nd Jan. 1863	Certain improvements in looms for weaving.
CROCKER, SAMUEL LEONARD -	739	19th March 1863	A new and useful or improved yellow metal sheathing nail or spike, which by means of a nail cutting engine is cut from yellow sheathing metal.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CROCKFORD, CHARLES - -	1860	25th July 1863	Improvements in the treatment and utilization of certain of the waste products from the manufacture of alkali and bleaching powder, and also from certain smelting operations.
CROFT, JOHN McGRÉGOR -	1676	6th July 1863	Propellers for propelling vessels.
CROFTS, WILLIAM - - -	1518	17th June 1863	Improvements in the production of fabrics by lace machinery and in means or apparatus employed therein.
CROLL, ALEXANDER ANGUS -	1647	2nd July 1863	Preparation of materials to be used in the purification of gas for illumination.
CROLL, ALEXANDER ANGUS -	2596	22nd Oct. 1863	Preparation of matters to be employed as disinfectants.
CROMPTON, WILLOUGHBY -	3038	2nd Dec. 1863	Improved railway crossings adapted to the ordinary single or double headed rails.
CRONDAL, ANTON COUR- [LANDER.	3099	8th Dec. 1863	Improvements in the mode of and apparatus for preparing cork stuffing for mattresses, pillows, cushions and other articles, and in the mode of applying the cork stuffing thereto. (Patented by Alfred Vincent Newton.)
CRONIN, JOHN BALDWIN -	3282	28th Dec. 1863	Improvements in applying power to windlass and other barrels used for raising and lowering weights. (Communicated by E. B. Requa.)
CROSBY, JAMES - - -	361	10th Feb. 1863	Improvements in carding-engines for carding and drawing flax, tow, in part applicable to carding cotton or other fibrous substances.
CROSLAND, JAMES STEAD -	2043	17th Aug. 1863	Improvements in lubricating and in arrangements and mechanism for lubricating the bearings, journals or steps of spindles, shafts, axles and other mechanism.
CROSSLEY, JAMES WILLIAM -	415	16th Feb. 1863	Improvements in press papers and in the method or means of drying them and other similar sheets of paper, applicable also for the drying of woven fabrics, yarns, wool, cotton or other fibrous substances.
CROSWELL, CALEB - - -	2464	8th Oct. 1863	Breech-loading fire-arms. (Communicated by Samuel Strong.)
CROWTHER, JAMES - - -	55	7th Jan. 1863	An improved mode of perching and dressing textile fabrics during the process of weaving.
CRUICKSHANK, ALEXANDER -	2050	18th Aug. 1863	Manufacture or production of food for cattle and all other domestic animals, poultry and game, and in the machinery or apparatus employed therein.
CULVERWELL, JOSEPH POPE -	1895	31st July 1863	Railway lamps.
CUMMING, JAMES - - -	3292	29th Dec. 1863	Apparatus used when giving motion to sewing-machines by straps or bands.
CUNNACK, RICHARD JOHN -	1971	10th Aug. 1863	Manufacture of cartridges for blasting and projectile purposes.
CUNNINGHAM, HENRY DUN- [CAN PRESTON.	1708	8th July 1863	Improvements in working guns and in matters relating thereto.
CUNNINGHAM, HENRY DUN- [CAN PRESTON.	3035	2nd Dec. 1863	Improvements in reefing and furling topsails, topgallant sails, and royals.
CUNNINGHAM, WILLIAM JOHN	2782	9th Nov. 1863	Sawing machines.

[Cut]

ALPHABETICAL INDEX OF PATENTEES

[Dal]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
CUTHELL, ALEXANDER - -	634	6th March 1863	Self-acting dampers for steam-engine furnaces.
CUTLER, GEORGE, J. - -	2592	22nd Oct. 1863	Boilers and apparatus used for the generation of steam.
CUTLER, JOSEPH - - -	2797	10th Nov. 1863	Construction of ornamental fountains.
CUTLER, JOSEPH - - -	3033	2nd Dec. 1863	Apparatus for lighting and ventilating.
CUTLER, JOSEPH HORATIO -	2204	8th Sept. 1863	A new or improved dress fastening, which said fastening is also applicable to the fastening of bands and belts and to other like purposes.

D.

DABOLL, CALEDON LEEDS -	2962	24th Nov. 1863	Marine fog signals or alarums.
DACHEUX, PIERRE FRANÇOIS -	1197	12th May 1863	Machinery for preparing, dressing and winding cotton, woollen, flax, silk and other warps. (Patented by Richard Archibald Brooman.)
DAFT, THOMAS BARNABAS -	2331	21st Sept. 1863	Improvements in the construction of iron ships and vessels, and in sheathing the same.
DAGLISH, GEORGE HEATON -	2574	20th Oct. 1863	Machinery for bending plates for iron ships and other like purposes.
DAHLKE, JULIUS GUSTAV -	49	6th Jan. 1863	Machinery for cutting clay in the manufacture of bricks, tiles and similar articles. (Communicated by Gottfried Sachsenberg.)
DAILLON, JEAN MARIE - -	552	27th Feb. 1863	Machinery or apparatus for doubling or twisting yarn, thread, braid, rope or similar articles. (Patented by Edward Thomas Hughes.)
DAINES, JOHN BENJAMIN -	1015	24th April 1863	Improvements in the preparation of stone, plaster, compo, iron, wood and such like substances, so as to preserve them from decay.
DAIRE, EMILE - - -	3247	23rd Dec. 1863	An improved apparatus for fixing candles upright in candlesticks. (Patented by William Edward Gedge.)
DALE, JOHN - - -	192	21st Jan. 1863	Improvements in obtaining colouring matters, which improvements are also applicable to dyeing and printing.
DALE, JOHN - - -	815	28th March 1863	Improvements in the manufacture of aniline, naphthylamine and other analogous bodies and in apparatus connected therewith, which apparatus is also applicable to obtaining finely divided metallic iron for other purposes.
DALE, JOHN - - -	3307	31st Dec. 1863	Obtaining colouring matters for dyeing and printing.
DALE, JOHN GALLEMORE -	91	10th Jan. 1863	Improvements in the manufacture of caustic soda and potash, and carbonates, chromates and stannates of the same alkalis.

Dal]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Dav

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DALES, JOHN - - -	3025	2nd Dec. 1863	Fitting moveable or travelling frames and surfaces.
DANCHELL, FREDERICK LUD- [WIG HAHN.	1820	21st July 1863	Certain improvements in apparatus for purifying water.
DANIEL, WILLIAM - -	997	21st April 1863	Improvements in apparatus for transmitting, equalizing and registering human power.
DANNATT, JAMES - - -	2270	16th Sept 1863	Construction of apparatus for cooling liquids.
DARLOW, WILLIAM - -	968	17th April 1863	Apparatus or means for obtaining motive-power.
DARLOW, WILLIAM - -	2547	17th Oct. 1863	Apparatus or means for obtaining motive-power.
DARRIEUX, JEAN - - -	1795	17th July 1863	Pounded glass powder used for cleaning metals and also for tooth powder.
DARWIN, EDMUND - - -	3118	11th Dec. 1863	Machinery for the manufacture of nails and rivets.
DATICHY, JEAN PIERRE FLORI- [MOND.	489	23rd Feb. 1863	Steam-engines.
DAUBRÉE, NICOLAS EDOUARD	1042	25th April 1863	Improvements in thrashing machines, part of which improvements are also applicable for hulling, decorticating, cleaning and polishing grains and seeds. (Patented by William Edward Newton.)
DAVENPORT, THOMAS WILLIAM	3269	24th Dec. 1863	Improvements in the manufacture of bracelets and other ornaments formed of paper or papier mâché or other similar material.
DAVEY, JOHN - - -	1368	1st June 1863	Horse rakes.
DAVIDSON, GEORGE - -	1476	12th June 1863	Improvements in the manufacture of paper bags and in the machinery employed therein.
DAVIDSON, JAMES - - -	3168	15th Dec. 1863	Machinery for manufacturing casks.
DAVIDSON, JOHN - - -	2625	24th Oct. 1863	Improvements in doubling yarns or threads of silk and other fibrous substances, and in the machinery employed therein.
DAVIES, GEORGE - - -	233	27th Jan. 1863	Improvements in preserving provisions and in the apparatus employed for such purpose. (Communicated by Alfred Henry Rémond.)
DAVIES, GEORGE - - -	501	24th Feb. 1863.	An improvement in melting and smelting furnaces. (Communicated by James Fletcher Stileman and Zabina Ellis.)
DAVIES, GEORGE - - -	592	3rd March 1863	Improvements in polishing or giving a lustre to soap, and in the apparatus employed in such process. (Communicated by Adolphe Dupuis.)
DAVIES, GEORGE - - -	770	24th March 1863	Improvements in wrappers or papers for needles, and in machinery or apparatus for sticking needles therein. (Communicated by George Penrice Farmer.)
DAVIES, GEORGE - - -	795	26th March 1863	Engraving upon metals. (Communicated by Louis Charles Emile Vial.)
DAVIES, GEORGE - - -	1071	28th April 1863	An improved machine for agitating and mixing substances (Communicated by James Holmes Harper and James Harper Peabody.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DAVIES, GEORGE - - -	1133	6th May 1863	Machinery or apparatus for forging and dressing horse-shoe and other nails. (Communicated by Charles Alexandre Louvrier.)
DAVIES, GEORGE - - -	1387	3rd June 1863	Machines for "ginning" cotton. (Communicated by Jules Alfred Chau-fourier.)
DAVIES, GEORGE - - -	1466	12th June 1863	Currying and finishing of leather. (Communicated by Benjamin Head Light-foot.)
DAVIES, GEORGE - - -	1478	13th June 1863	An improved mode of oiling journals or axles. (Communicated by Henry Wood.)
DAVIES, GEORGE - - -	1619	29th June 1863	An improved cork cutting machine. (Communicated by Edward Borie and Alexander Mackie.)
DAVIES, GEORGE - - -	1844	23rd July 1863	An improvement in revolving fire-arms. (Communicated by Christian Sharps.)
DAVIES, GEORGE - - -	2022	15th Aug 1863	Furnaces for heating, flattening and annealing glaas. (Communicated by Andrew Kesler Hay.)
DAVIES, GEORGE - - -	2122	28th Aug. 1863	Manufacture of iron and steel from the cinders and refuse of puddling and other furnaces and from certain kinds of ores. (Communicated by Antoine Leonard Fleury.)
DAVIES, GEORGE - - -	2293	18th Sept. 1863	Improvements in the manufacture of iron and steel, and in the apparatus to be employed in such manufacture. (Communicated by William Gerhardt.)
DAVIES, GEORGE - - -	2572	20th Oct. 1863	Improvements in forming stitches over the edges of fabrics and in machinery connected therewith. (Communicated by Abraham Hart.)
DAVIES, GEORGE - - -	2617	12th Nov. 1863	Springs for railroad cars and other similar purposes. (Communicated by Augustus Ball Davis.)
DAVIES, GEORGE - - -	2954	24th Nov. 1863	Photography. (Communicated by Mathieu Risler the younger.)
DAVIES, WILLIAM - - -	2754	6th Nov. 1863	Machinery for cutting corks, bungs, gun wads and other similar articles.
DAVIS, AUGUSTUS BALL -	2617	12th Nov. 1863	Springs for railroad cars and other similar purposes. (Patented by George Davies.)
DAVIS, BENJAMIN - - -	2311	19th Sept. 1863	An improved mode of strengthening tilt hammers.
DAVIS, JOHN COOPE - - -	1022	24th April 1863	Lawn mowing, rolling and collecting machines.
DAVIS, SAMUEL - - -	1705	9th July 1863	An improved "anatomical" bit for horses or other animals. (Communicated by Henry Theodor Romertze.)
DAVIS, THOMAS SHRIMTON -	201	22nd Jan. 1863	An improvement in piston valves and other pistons. (Patented by William Clark.)
DAVISON, JAMES - - -	1760	14th July 1863	Furnaces for boilers, smelting and other useful purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DAVISON, ROBERT - - -	1655	3rd July 1863	Machinery for decorticating and cleaning corn and other grain. (Communicated by Louis Basilide Sulpice Poissant.)
DAVY, DAVID, JR. - - -	2715	3rd Nov. 1863	Steam hammers.
DAWES, WILLIAM - - -	594	3rd March 1868	Burglar proof safes and strong room doors and frames.
DAWES, WILLIAM HENRY -	1513	17th June 1863	Manufacture of iron.
DAWSON, DAN - - -	92	12th Jan. 1863	Manufacturing "magenta" colour or dye.
DAWSON, DAN - - -	2803	11th Nov. 1863	Production of colours for dyeing.
DAWSON, EDWIN - - -	1005	22nd April 1863	Looms for weaving.
DAWSON, ROGER - - -	1869	28th July 1863	An improved method of annihilating or extinguishing fires.
DAY, CHARLES ARTHUR - -	1146	7th May 1863	Marine engines.
DE ANGELIS, IGNAZIO - -	2314	19th Sept. 1863	An improved apparatus for obtaining motive-power. (Communicated by Frederico Salomone.)
D'ARCET, JEAN EUGENE - -	2234	10th Sept. 1863	Purification and disinfection of hydro-carburets and especially of oils produced by distillation of coal, schist and boghead. (Patented by William Clark.)
DE BAYELT, GUSTAVE MAIL- [LARD.]	2334	22nd Sept. 1863	An improved method of compounding by agglomeration artificial fuel.
DE BEAUREGARD, FELIX ALEX- [ANDRE TESTUD.]	1209	13th May 1863	Improvements in the extraction of hydro-carburets from minerals, in the distillation thereof, and in apparatus employed therein. (Patented by Richard Archibald Brooman.)
DE BERGUE, CHARLES - - -	1723	10th July 1863	Improvements in piles for foundations and in piers for bridges and other buildings or structures.
DE BERGUE, MIGUEL - - -	2461	7th Oct. 1863	Permanent way of railways. (Patented by John Henry Johnson.)
DE BREANSKI, LEOPOLD - -	1029	25th April 1863	Improved apparatus for fixing drills, which invention is also applicable for fixing apparatus for raising, supporting and suspending weights and for other analogous purposes.
DE CHANGY, CHARLES CON- [STANT SIMONET.]	2350	24th Sept. 1863	Improved machinery or apparatus for stirring or mixing various ingredients or materials to a pasty consistence, said machinery being especially adapted to the manufacture of bread and other articles of food. (Patented by Adolphe Ernest Ragon.)
DE CONNICK, LOUIS JEAN [GUSTAVE.]	262	29th Jan. 1863	Construction of granaries. (Patented by Henri Adrien Bonneville.)
DE FONTAINEMOREAU, PETER [ARMAND LECOMTE.]	2342	23rd Sept. 1863	Certain improvements in centrifugal machines for treating saccharine substances, part of the same being applicable to other centrifugal machines. (Communicated by Mr. Charles Hänsel.)
DE GROMARD, ARTHUR QUEN- [TIN.]	1401	5th June 1863	Musical instruments.

De]

ALPHABETICAL INDEX OF PATENTEEES

[De

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DE GROOTE, CHARLES - -	755	21st March 1863	Improvements in the construction of lamps with circular burners or wicks, for the combustion of petroleum, schist and other volatile oils, parts of said improvements being applicable to gas burners, night lights, and lamps burning spirits and animal oils.
DE KERAVENAN, FRANCIS [BERNARD.	1154	8th May 1863	An improved mechanical movement for producing an impelled current of air for lamps and which may be used for other purposes. (Patented by Joseph Henry Bailey.)
DE KEYSER, JOSEPH - -	605	4th March 1863	Improvements in treating petroleum oil and in the combination thereof with other oils, for lubricating and other like purposes.
DE LAFARGE, JEAN JACQUES [LEOPOLD ROUSSEAU.	376	11th Feb. 1863	Photographic apparatus. (Patented by Richard Archibald Brooman.)
DE LAIRE, GEORGES - -	717	17th March 1863	Manufacture of brown colouring matters. (Partly communicated by Charles Girard.)
DE LAPPARENT, HENRI - -	348	7th Feb. 1863	Improvements in the application of gas for the preparation of wood work generally and iron ships, for their better preservation and reception of paint or other protecting coating, and for disinfecting ships, hospitals and other places. (Patented by William Clark.)
DE LAVENANT, CAMILLE BA- [RONESS.	1646	2nd July 1863	Certain compositions for protecting metals and metallic articles from oxidation and for coating slate, bricks, pottery and ceramic ware. (Patented by Richard Archibald Brooman.)
DE LEVENHAGEN, THÉODORE -	1722	10th July 1863	Improvements in the construction of soil pits and in the mode of emptying the same. (Patented by James John Shedlock.)
DE LIANCOURT, CALLISTUS AU- [GUSTUS COUNT DE GODDES.	1598	25th June 1863	Improvements in apparatus for the preservation of life from drowning.
DE MANIQUET, JEAN ANTOINE	785	25th March 1863	Improvements in the manufacture of cords, ropes and cables and in machinery employed therein, applicable also to spinning, winding and twisting fibrous and filamentous substances. (Patented by Richard Archibald Brooman.)
DE MASSAS, FRANÇOIS AN- [TOINE EDMOND GUIRONNET.	982	16th April 1863	Improvements in smut machines and in machines for cleansing and peeling grain and seeds.
DE MASSAS, FRANÇOIS AN- [TOINE EDMOND GUIRONNET.	2534	16th Oct. 1863	Improvements in smut machines and in machines for cleansing and peeling grain and seeds.
DE ROSTAING, ALPHONSE AN- [THELME ANTOINE BARON.	1872	28th July 1863	An improved method of manufacturing iron and steel with cast iron taken in a subdivided state.
DE SAINT JEAN, LUDOVIC [D'ESTIENNE.	2934	21st Nov. 1863	An improved apparatus for closing and fastening gates, doors and things of that description.
DE STAINS, VICTOR (B.A.) -	3182	15th Dec. 1863	Improvements in steam apparatus for raising and forcing water, applicable to steam navigation and water works in general.

De]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Del

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DE TRÉGOMAIN, FRANÇOIS -	839	1st April 1863	Improvements in preventing fermentation in alcoholic and other liquids while drawing them from their containing vessels, and in apparatus for the same. (Patented by William Clark.)
DE WAILLY, CLEMENCE -	2362	25th Sept. 1863	An improved slipper or clog principally intended for bath rooms.
DE WAILLY, VEUVE LEON -	1395	4th June 1863	An improved method of preserving carpets from the effect of dust.
DE WAROQUIER, JEAN LOUIS	2284	17th Sept. 1863	Taps. (Patented by Richard Archibald Brooman.)
DE WYLDÉ, FÉDOR - -	752	20th March 1863	Manufacture of cement from gypsum.
DE WYLDÉ, FÉDOR - -	1519	17th June 1863	An improved means for the protection and preservation of lead surfaces exposed to the action of water, and for the protection of such surfaces from decomposition by atmospheric action. (Communicated by Dr. Henry Schwarz.)
DE WYLDÉ, FÉDOR - -	2283	17th Sept. 1863	Manufacture of an hydrated silica.
DE WYLDÉ, FÉDOR - -	2550	17th Oct. 1863	Improvements in the induration of stone, cement, stucco, brick or other analogous materials, also in the manufacture of artificial stone.
DE WYLDÉ, FÉDOR - -	2551	17th Oct. 1863	Separation of molasses and other impurities from sugar crystals. (Communicated by Dr. Henry Schwarz.)
DEANE, EDWARD - - -	1453	11th June 1863	Cooking and culinary utensils.
DEANE, EDWARD - - -	2005	13th Aug. 1863	Improvements in artillery and fire-arms, and in projectiles for the same.
DEARLOVE, WILLIAM FRANCIS	2832	13th Nov. 1863	Means or apparatus for effecting the chopping or separation of animal and vegetable substances.
DEARN, ALLEN MICHAEL -	2037	17th Aug. 1863	A new centrifugal disc mashing machine.
DECOMBETTE, LÉONCE - -	2256	14th Sept. 1863	Safety lamps for mines. (Patented by William Edward Gedge.)
DÉCOURS, JEAN BAPTISTE -	767	23rd March 1863	Agricultural apparatus. (Patented by William Clark.)
DEDEL, GERARD - - -	2546	17th Oct. 1863	Washing machines. (Patented by John Henry Johnson.)
DEES, JOHN - - - -	2786	9th Nov. 1863	An improved machine adapted for performing various mining operations, such as working or cutting coal or other analogous substances in mines, forcing water from mines and air thereunto.
DEL RIO, PATRICIO MARCOS -	1968	10th Aug. 1863	A new machine for obtaining motive-power.
DELAHAYE, VICTOR DESIRÉ -	560	27th Feb. 1863	Apparatus for cleaving and excavating pit coal and rock or earth.
DELAMARRE, THEODORE CASI- [MIR	2587	21st Oct. 1863	Improvements in treating ligneous substances, in separating and recovering the fibrous portions therefrom, in preparing, bleaching and sizing the same, and in machinery employed therein. (Patented by Richard Archibald Brooman.)
DELANY, JOSEPH FRANCIS -	1711	9th July 1863	Pistons of steam-engines.
DELCAMBRE, ADRIEN - -	899	9th April 1863	Apparatus used for warming railway carriages. (Patented by Richard Kyrke Penson.)

[Del]

ALPHABETICAL INDEX OF PATENTEEES

[Dis]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DELSARTE, FRANÇOIS - -	330	5th Feb. 1863	Apparatuses for tuning pianofortes. (Patented by Richard Archibald Brooman.)
DELTON, LOUIS JEAN - -	1004	22nd April 1863	Means of obtaining publicity. (Patented by William Clark.)
DELVAUX, GEORGES AUGUSTE [JULES]	70	8th Jan. 1863	Manufacture of dyes from aniline and its analogues. (Patented by Robert Thomson Monteith and Robert Monteith.)
DELVAUX, GEORGES AUGUSTE [JULES]	660	11th March 1863	Making dyes from aniline and its analogues. (Patented by Robert Thomson Monteith and Robert Monteith.)
DEMBINSKI, HENRI - -	402	14th Feb. 1863	A new motive apparatus and processes proper for giving to it a continuous motion and unlimited strength.
DENING, CHARLES - -	911	10th April 1863	Horse rakes.
DENIS, MARC LOUIS - -	1196	12th May 1863	Spring mattresses, sofas, chairs, seats and similar articles. (Patented by Richard Archibald Brooman.)
DENNETT, CHARLES COLTON -	1098	13th Aug. 1863	An improved method of fire proof construction for buildings, by the use of arches formed of concrete.
DEPLANQUE, LOUIS ALEX- [ANDRE JOSEPH.]	1559	20th June 1863	Treatment of broom for the manufacture of paper pulp. (Patented by William Clark.)
DESCOULEUR, LOUIS CASIMIR	172	20th Jan. 1863	Apparatus for retarding and stopping railway carriages. (Patented by Michael Henry.)
DESENS, LOUIS - - -	676	12th March 1863	An improved bath or bathing machine adapted for deep water.
DESENS, LOUIS - - -	2238	11th Sept. 1863	An improved bath or bathing machine adapted for deep water.
DESESTRE, LOUIS EDOUARD -	3285	29th Dec. 1863	An improved pneumatic apparatus for filling barrels used for watering roads and other purposes.
DESGOFFE, AUGUSTE - -	2159	1st Sept. 1863	Hydraulic apparatus. (Patented by William Clark.)
DESPREZ, JACQUES - -	1120	5th May 1863	A new fabric suitable for trimmings. (Patented by Richard Archibald Brooman.)
DESIGNES, PETER HUBERT -	3089	8th Dec. 1863	Apparatus for exhibiting dissolving views.
DEVILLE, ESTÈVE - - -	431	17th Feb. 1863	Floating or life preserving coats or garments (Communicated by Jean Louis Vergniais.)
DIBB, WILLIAM THOMAS -	428	17th Feb. 1863	An improvement in brewing.
DICK, ALEXANDER - - -	1143	7th May 1863	Improvements in the purification of gas ordinarily used in illuminating, and in the reduction of ores and smelting of metals by means of such gas so purified.
DICKENS, ALBERT LUNGLEY -	493	23rd Feb. 1863	Ornamenting plush and other such textile fabrics.
DICKENS, THOMAS - - -	493	23rd Feb. 1863	Ornamenting plush and other such textile fabrics.
DICKERSON, EDWARD - -	842	1st April 1863	Steam-boilers. (Patented by George Tomlinson Bougfield.)
DICKEY, GEORGE - - -	2408	1st Oct. 1863	Winkers or eye-screening apparatus for horses and other animals.
DICKINS, ALBERT LUNGLEY -	2609	22nd Oct. 1863	Dyeing threads of silk.
DICKINS, THOMAS - - -	2609	22nd Oct. 1863	Dyeing threads of silk.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DICKINSON, JOHN - - -	248	28th Jan. 1863	Apparatus for steaming, cooking, and generating gas.
DICKINSON, JOHN, the younger	248	28th Jan. 1863	Apparatus for steaming, cooking, and generating gas.
DICKINSON, JOHN CHARLES -	452	19th Feb. 1863	Certain improvements in machinery or apparatus for warping or beaming yarns or threads.
DICKINSON, WILLIAM MARK -	248	28th Jan. 1863	Apparatus for steaming, cooking, and generating gas.
DICKSON, JOHN FARMERLEY -	1898	31st July 1863	Manufacture of boots and shoes.
DICKSON, PERRY - - -	99	12th Jan. 1863	Improvements in the application of power designed for stationary and traction engines, propellers and other machinery. (Patented by William Edward Newton.)
DICKSON, RICHARD - - -	1970	10th Aug. 1863	Lithographic printing presses.
DIMOCK, IRA - - - -	1039	25th April 1863	Machinery for cleaning, sorting according to size, and doubling silk and other threads.
DIRCKS, HENRY - - -	328	5th Feb. 1863	Apparatus to be used in the exhibition of dramatic and other like performances.
DISTIN, WILLIAM ALFRED -	12	2nd Jan. 1863	Pipes for smoking tobacco or other herbaceous compounds.
DITTLER, FRITZ - - -	723	18th March 1863	Manufacture of spoons and forks. (Patented by Richard Archibald Brooman.)
DIXON, ADAM - - - -	1735	11th July 1863	A new fastener or holder for flowers or other decorations to coats and articles of dress.
DIXON, WILLIAM ADAM - -	2571	20th Oct. 1863	Making aluminate of soda and other aluminous salts.
DIXON, WILLIAM JAMES -	3215	21st Dec. 1863	Improvements in oil cans and in apparatus for lubricating.
DOBB, THOMAS - - - -	2049	18th Aug. 1863	Improvements in chimney tops, which improvements are also applicable to coverings for ventilating shafts or flues from mines and other places.
DOBBIE, JAMES - - - -	2242	11th Sept. 1863	Construction of railway and other carriages.
DOBBS, GUILLAUME SAMUEL -	2533	16th Oct. 1863	Pumps to be worked by steam. (Patented by Richard Archibald Brooman.)
DOBSON, BENJAMIN - - -	354	9th Feb. 1863	Certain improvements in carding-engines. (Communicated by John Lees Wrigley.)
DOBSON, BENJAMIN - - -	1429	9th June 1863	Certain improvements in machinery or apparatus for preparing cotton and other fibrous substances.
DOBSON, BENJAMIN - - -	2915	20th Nov. 1863	Machinery for ginning cotton and for opening cotton and other fibrous substances.
DOBSON, BENJAMIN - - -	3139	12th Dec. 1863	Certain improvements in machinery for carding cotton and other fibrous substances.
DODD, JOHN - - - -	2590	21st Oct. 1863	Mules for spinning and doubling.
DODD, JOHN - - - -	2833	13th Nov. 1863	Mules for spinning and doubling.
DODDRELL, GEORGE JOHN -	3010	1st Dec. 1863	Improvements relating to the manufacture or refining of sugar.
DODGE, JAMES - - - -	2143	29th Aug. 1863	Machinery or apparatus for grinding and polishing metallic articles.
DODGE, JAMES - - - -	2506	13th Oct. 1863	Improvements in machinery for rolling, shaping or forging metals, and in apparatus for grinding and polishing the same.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DODGE, JAMES - - -	3187	15th Dec. 1863	Improvements in grinding and polishing glass and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
DODGE, LEVI - - -	2113	26th Aug. 1863	Improvements in shaping and punching metallic articles and in the machinery or apparatus to be employed therein. (Patented by David Blake.)
DODGEON, JOHN - - -	1994	12th Aug. 1863	Looms for weaving.
DODWELL, ROBERT VALENTINE	476	21st Feb. 1863	An improved method of preventing the destruction of plants by insects and certain descriptions of animals, and in the means for effecting the same.
DONALD, HUGH - - -	369	11th Feb. 1863	Machinery for shearing, punching and rivetting metals.
DONALD, HUGH - - -	993	21st April 1863	Machinery or apparatus for bending or straightening metal plates.
DONALD, JOHN CAMERON MAC	1661	4th July 1863	Manufacture and application of printing apparatus.
DONALD, JOHN MC - -	1663	4th July 1863	Certain improvements in jacquard looms.
DONBAVAND, WILLIAM - -	721	18th March 1863	Looms for weaving.
DONISTHORPE, GEORGE EDMOND	1072	28th April 1863	Apparatus used when getting coal and other minerals.
DONISTHORPE, GEORGE EDMOND	2671	28th Oct. 1863	Apparatus used when getting coal and other minerals.
DORGAL, LOUIS ETIENNE -	2394	30th Sept. 1863	Musical instruments. (Patented by William Clark.)
DOUGALL, JAMES DALZIEL -	2468	8th Oct. 1863	Improvements in camel guns and other light artillery, which improvements are also applicable to punt guns or other heavy fowling pieces or rifles.
DOUGLAS, ALEXANDER - -	2009	14th Aug. 1863	Hand trucks. (Patented by Samuel Russel Wilmot.)
DOUGLAS, THOMAS - - -	3053	4th Dec. 1863	Construction of combs for the human hair.
DOURIEZ, JEAN CHARLES -	413	14th Feb. 1863	Improvements in wrought iron casements and in the means for fastening the same, which improvements are also partly applicable to the framework of glass doors, conservatories and similar structures. (Patented by John Henry Johnson.)
DOWLER, GEORGE - - -	62	7th Jan. 1863	Manufacture of match boxes.
DOWLER, GEORGE - - -	1215	14th May 1863	An improvement or improvements in match boxes.
DOWNES, ANNE ABBEY - -	2322	21st Sept. 1863	Artificial teeth.
DOWNIE, JOHN - - -	357	9th Feb. 1863	Traction engines or common road locomotives.
DOWSON, JOSEPH EMERSON -	20	2nd Jan. 1863	Manufacture of wrought metal piles, columns and shafts.
DOWSON, JOSEPH EMERSON -	1937	6th Aug. 1863	A new application of rolled metal plates to the formation of roadways, bridges, tramways and other structures.
DRANSFIELD, JOHN - - -	908	10th April 1863	Ornamentation by printing of felt hats.
DRONKE, ERNEST - - -	2353	24th Sept. 1863	An improved mode of manufacturing gun-powder suitable for war, mining and general purposes. (Communicated by Edward Schultze.)
DROOP, JUSTUS CHARLES -	1155	8th May 1863	An instrument or holder for holding nails, screws or other fastenings.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DRUMMOND, JOHN WALLACE-	2834	13th Nov. 1863	Looms for weaving.
DRUMMOND, WILLIAM - - -	299	31st Jan. 1863	Apparatus for stopping the supply of gas to burners when the light is put out.
DU MOTAY, CYPRIEN MARIE [TESSIE.	488	23rd Feb. 1863	Improvements in dressing millstones, in ornamenting or engraving on glass, pottery and other similar substances, and in materials employed therein. (Patented by Richard Archibald Brooman.)
DUBREUIL, JEAN BAPTISTE -	1106	2nd May 1863	Carts, waggons and other vehicles.
DUBRUNFAUT, AUGUSTE PIERRE	2053	18th Aug. 1863	An improved method of and apparatus for treating molasses, syrups, saccharine juices and other products. (Patented by Richard Archibald Brooman.)
DUCKETT, JAMES - - -	3266	24th Dec. 1863	Improvements in the arrangement of furnaces, flues and kilns for drying and burning bricks, tiles and other articles, and in the application of the heat from the kilns to boilers for generating steam.
DUCKWORTH, HINDLE - - -	828	31st March 1863	Looms for weaving.
DUCKWORTH, JOHN - - -	371	11th Feb. 1863	Manufacture of paper.
DUDGEON, ARTHUR - - -	557	27th Feb. 1863	Improvements in the construction of underground railways or subways, and in carriages to be used or worked therein.
DUGDALE, ANTHONY - - -	482	21st Feb. 1863	Throttle valves.
DUGGAN, FREDERICK JONES -	1623	30th June 1863	Improved methods of connecting lamp chimnies and other glasses or shades with the burners of lamps.
DUHAMEL, JULES FRANÇOIS -	1667	4th July 1863	An improved machine constructed on self-moving principles for obtaining motive-power. (Patented by Henri Adrien Bonneville.)
DUHESME, LOUIS JULES - -	223	24th Jan. 1863	Manufacture of anvils and other metal articles requiring hard surfaces. (Patented by Richard Archibald Brooman.)
DUJARDIN, PIERRE ANTOINE [JOSEPH.	1772	15th July 1863	Electric telegraphs.
DUMAS, PIERRE - - -	2917	20th Nov. 1863	An improved hoisting and lowering apparatus. (Patented by Charles Stevens.)
DÜMLER, GABRIEL - - -	1350	29th May 1863	Rails for railways. (Patented by William Loeder.)
DUMONTHIER, CELESTIN -	1329	27th May 1863	Offensive and defensive arms. (Patented by William Clark.)
DUMOULIN, ADRIEN JULES [ALEXIS.	1233	16th May 1863	Rotary engines. (Patented by William Clark.)
DUNBAR, JAMES, JR. - - -	1034	25th April 1863	Apparatus for steering and manœuvring ships and vessels.
DUNCAN, CHARLES STEWART	1824	21st July 1863	Improvements in the means of and apparatus for heating, melting, boiling, evaporating and other useful purposes.
DUNCAN, WILLIAM LUNDI -	1007	23rd April 1863	An improved mode and apparatus for distributing sand or any other suitable substance or substances on the rails of railways and tramways.
DUNDONALD, THOMAS BARNES, [EARL OF.	817	30th March 1863	Treating fats and fatty oils and volatile oils or essential oils.
DUNLOP, JOHN MACMILLAN -	833	31st March 1863	Machinery for ginning cotton.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DUNN, THOMAS - - -	1614	27th June 1863	Construction and maintenance of the permanent way of railways.
DUPUIS, ADOLPHE - - -	592	3rd March 1863	Improvements in polishing or giving a lustre to soap and in the apparatus employed in such process. (Patented by George Davies.)
DUPUY, BARTHÉLEMY - -	475	21st Feb. 1863	Improvements in the treatment of colouring matters derived from tar for the purpose of making them applicable for painting. (Patented by Edward Thomas Hughes.)
DUPUY, JEAN THEODORE -	2856	14th Nov. 1863	Presses for lithographic and other printing. (Patented by Richard Archibald Brooman.)
DURAND, AMAND LOUIS -	2174	3rd Sept. 1863	Certain improvements in the manufacture of nails and other similar articles.
DURAND, CHARLES - - -	382	12th Feb. 1863	Bearing surfaces of shafts and other axles. (Patented by William Clark.)
DURAND, CHARLES - - -	2177	3rd Sept. 1863	Application of rolling friction to the axle-boxes and journals of running shafts, and axletrees of machines and vehicles of all descriptions, for lessening the resistance to the motion. (Patented by Nicolas Bailly.)
DURAND, FRANÇOIS - - -	1000	22nd April 1863	Moulding articles of china or other clay or of other plastic materials.
DURAND, FRANÇOIS - - -	2686	30th Oct. 1863	Cotton gins.
DURAND, PIERRE LOUIS -	266	29th Jan. 1863	Manufacture of candles. (Patented by Richard Archibald Brooman.)
DURRANT, JAMES - - -	432	17th Feb. 1863	Chimney tops.
DURST-WILD, ANNE CATHERINE.	2804	11th Nov. 1863	An improved mode of ornamenting hats and bonnets. (Communicated by Valentin Chevy, jr.)
DUSART, LUCIEN - - -	2222	9th Sept. 1863	Means of utilizing refuse azoted matters of commerce for the manufacture of various chemical products. (Patented by William Clark.)
DUSEIGNEUR, EMILE - - -	1801	17th July 1863	Machinery for winding, measuring and sizing silk. (Patented by Richard Coenen.)
DUTFOY, RENÉ - - -	544	26th Feb. 1863	Improvements in the manufacture of buttons and in apparatus for the same. (Patented by William Clark.)
DUTTON, EDWARD KENWORTHY	1323	26th May 1863	Certain improvements in apparatus called "gins" for cleansing seed cotton.
DUTTON, EDWARD KENWORTHY	2737	5th Nov. 1863	Certain improvements in apparatus for coating or covering the surfaces of rollers or cylinders with leather or other material.
DUTTON, ROBERT - - -	1393	4th June 1863	Construction of flour and meal mills.
DWYER, ROBERT DOYNE -	619	5th March 1863	Certain improvements in springs to be employed in the manufacture of beds, seats or for similar purposes where an elastic surface is required.
DWYER, ROBERT DOYNE -	1741	13th July 1863	Construction of vents for casks and other vessels.
DWYER, ROBERT DOYNE -	1743	13th July 1863	Construction of letter copying presses.
DWYER, ROBERT DOYNE -	2292	18th Sept. 1863	Improved apparatus for cleaning and painting or coating the bottoms of ships and other structures.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
DYÉ, PAUL - - -	1609	26th June 1863	Apparatus for aerating liquids. (Patented by William Clark.)
DYER, GEORGE - - -	2446	6th Oct. 1863	Construction of railway carriages.
DYOTT, MICHAEL BOYD - -	1865	27th July 1863	Coal oil lamps. (Patented by George Haseltine.)
DYSON, GEORGE WALTER -	2770	7th Nov. 1863	Method of and machinery for forming metal plates, bars and rods taper.
DYSON, JOHN - - -	2770	7th Nov. 1863	Method of and machinery for forming metal plates, bars and rods taper.
DYSON, JOSEPH - - -	2770	7th Nov. 1863	Method of and machinery for forming metal plates, bars and rods taper.

E.

EASTON, EDWARD - - -	800	26th March 1863	An improved application of hydraulic apparatus for lowering full casks and other goods, and raising empty casks or vessels.
EASTWOOD, HENRY - - -	3091	8th Dec. 1863	Machinery or apparatus for carding wool or other fibrous substances.
EASTWOOD, JAMES - - -	3225	21st Dec. 1863	Apparatus for forcing size or other glutinous substances through pipes to supply machines for sizing yarns, cloths or other materials.
EATON, HENRY - - -	950	15th April 1863	Improvements applicable to presses for baling purposes.
EATON, RALPH - - -	2717	3rd Nov. 1863	Machinery for ruling or marking leather.
EATON, RICHARD - - -	2065	20th Aug. 1863	Improved solutions to be used in the manufacture of paints and the preservation of wood, stone and metallic surfaces, and in the preservation and waterproofing of fibrous materials generally. (Patented by George Spencer.)
EAVESTAFF, WILLIAM GLEN -	709	16th March 1863	Construction of pianofortes.
ECCLESTON, JAMES - - -	2075	21st Aug. 1863	Improvements in apparatus for economizing or regulating water power used for blowing organs or harmoniums, which improvements are also applicable for other purposes where an irregular motive-power is desired.
ECKEL, JOHN JORDAN - - -	3250	23rd Dec. 1863	Improvements in percussion fuzes for igniting the charges of explosive projectiles, mines, torpedoes and other charges of gunpowder or other explosive or easily inflammable substances or compounds. (Patented by William Clark.)
ECKERSLEY, JAMES - - -	43	6th Jan. 1863	Looms for weaving.
ECKERSLEY, JAMES - - -	487	23rd Feb. 1863	Spinning and doubling silk.
EDMONDS, HENRY - - -	535	26th Feb. 1863	Ventilation of ships and vessels and apparatus connected therewith.
EDMONDSON, JOSEPH - - -	239	27th Jan. 1863	Looms and apparatus for weaving.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
EDMUNDS, JAMES - - -	2000	13th Aug. 1863	An improvement or improvements in gun and pistol furniture.
EDSON, TRACY - - -	3204	19th Dec. 1863	Improvements in the composition of ink suitable for printing and coloring or shading bank notes and other instruments and documents, by the copper plate, lithographic, typographic, xylographic or other processes of printing. (Patented by Edward Thomas Hughes.)
EDWARD, JOHN - - -	150	17th Jan. 1863	Manufacture of buttons.
EDWARDS, ELIEZER - -	1684	7th July 1863	Improvements in instruments or apparatus to be used in the manufacture of glass finger plates and other articles made of glass, and in kilns for annealing articles made of glass.
EDWARDS, JOHN - - -	526	25th Feb. 1863	Manufacture of buttons.
EDWARDS, JOHN - - -	1250	19th May 1863	Permanent way of railways.
EDWARDS, JOHN - - -	1432	9th June 1863	Railway chairs and sleepers.
EDWARDS, JOHN - - -	2280	17th Sept. 1863	Permanent way of railways.
EDWARDS, JOHN - - -	2722	4th Nov. 1863	Improvements in the permanent way of railways and fastenings for the same.
EDWARDS, SAMUEL - -	3157	14th Dec. 1863	Improvements in grinding pearl, and which said improvements are also applicable for grinding other materials.
EFFERTZ, PETER - - -	2335	22nd Sept. 1863	Machinery or apparatus for making bricks, tiles, pipes and other similar articles.
EGLIN, JOHN - - -	2897	19th Nov. 1863	Improvements in "drifts" or tools used for enlarging holes and in apparatus for making the same.
EISENLOHR, AUGUSTUS -	541	26th Feb. 1863	Production and manufacture of blue colors. (Patented by Astley Paston Price.)
EISWALD, THEODORE GUSTAV-	2389	29th Sept. 1863	An improvement in the soles of boots and shoes. (Patented by William Clark.)
ELCE, THOMAS, JR. - -	473	21st Feb. 1863	Certain improvements in machinery for preparing and doubling cotton and other fibrous substances.
ELDER, JOHN - - -	979	20th April 1863	Surface condensers.
ELDER, JOHN - - -	2889	18th Nov. 1863	Improvements relating to floating and other docks.
ELDER, JOHN - - -	2898	19th Nov. 1863	Steam-engines.
ELEY, WILLIAM THOMAS -	2346	23rd Sept. 1863	Manufacture or construction of ball cartridges.
ELLACOTT, JOHN - - -	197	22nd Jan. 1863	Improvements applicable to spur wheels, racks and other toothed gear, to insure greater strength in the teeth.
ELLIOT, GEORGE - - -	2398	30th Sept. 1863	Props and supports for coal and other mines.
ELLIOTT, HENRY - - -	1782	16th July 1863	Breech-loading fire-arms.
ELLIOTT, THOMAS ALEXANDER	1463	11th June 1863	Reefing topsails and courses.
ELLIOTT, THOMAS ALEXANDER	1483	13th June 1863	Improvements in the construction of and in the means of ballasting ships and other vessels.
ELLIS, GEORGE HENRY - -	2435	5th Oct. 1863	Application of apparatus for aiding the combustion of fuel.
ELLIS, GEORGE HENRY - -	3184	17th Dec. 1863	Cases for packing and storing bottles.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ELLIS, JOHN - - -	1997	13th Aug. 1863	Machinery for scouring, cleaning and polishing wheat, rice, malt, grain and other seeds.
ELLIS, WILLIAM IRLAM - -	1336	28th May 1863	Steam-boilers.
ELLIS, ZABINA - - -	501	24th Feb. 1863	An improvement in melting and smelting furnaces. (Patented by George Davies.)
ELLISON, JAMES - - -	1577	23rd June 1863	Improvements in slubbing, intermediate and roving-frames, in throstles and winding machines used for the manufacture of cotton or other fibrous materials.
ELLISON, JOSEPH - - -	2843	14th Nov. 1863	Flour dressing machines called silk reels.
ELLISSEN, ADOLF - - -	341	6th Feb. 1863	An improved method of treating sheeting and plates of iron to be used in ship building and marine constructions, for protection against marine animals and marine plants.
ELLISSEN, ADOLF - - -	2847	14th Nov. 1863	Improvements in preventing the fouling of the bottoms and sides of ships and vessels, particularly applicable to ships and vessels constructed of or sheathed with iron.
ELMER, DR. WILLIAM - - -	638	6th March 1863	Improvements in the manufacture of illuminating gas and in apparatus employed therein. (Patented by George Tomlinson Bousfield.)
ELMER, DR. WILLIAM - - -	2162	1st Sept. 1863	Manufacture of illuminating gas. (Patented by George Tomlinson Bousfield.)
ELMSLIE, EDMUND WALLACE	2867	16th Nov. 1863	An improved and economical construction of cottages, applicable also to various other descriptions of buildings.
ELSDON, WILLIAM - - -	2320	21st Sept. 1863	The construction of rail and road carriages and improved wheel tires, and an improvement in railway crossings adapting them to such carriages.
ELSEY, JOSEPH - - -	629	5th March 1863	Improved apparatus for the winding of lace on to the work roller in warp lace, bobbin net or twist lace machines.
ELSON, JOSEPH - - -	2475	9th Oct. 1863	Improvements in parallel turning and in machinery for that purpose.
ELY, FREDERICK - - -	1694	8th July 1863	An improved composition applicable to corn plasters.
EMANUEL HARRY - - -	3239	22nd Dec. 1863	New or improved means of protecting valuable articles exhibited in shop fronts and other places.
EMERY, GEORGE WASHINGTON	1194	12th May 1863	Apparatus for manufacturing saws suitable for ginning cotton and for other uses. (Patented by Horace Leeman Emery.)
EMERY, HORACE LEEMAN -	1194	12th May 1863	Apparatus for manufacturing saws suitable for ginning cotton and for other uses. (Communicated by George Washington Emery.)
EMERY, HORACE LEEMAN -	2765	7th Nov. 1863	Machinery for ginning and cleaning cotton, a part of which are applicable to machines for other purposes.

Name of Patentec.	Number of Patent.	Date.	Subject-matter of Patent.
EMETT, WILLIAM HENRY -	714	17th March 1863	Improvements in processes for facilitating and combining the art of writing with engraving together on stone, applicable to maps, plans, specifications and other lithography, which improvements are also available for retransfers to zinc or stone, or printing from original.
EMMANUEL, CHARLES - -	2674	28th Oct. 1863	Instruments for taking astronomical and other observations. (Patented by Richard Archibald Brooman.)
EMMOTT, THOMAS - - -	588	3rd March 1863	Certain improvements in mules for spinning and doubling.
ENGLAND, THOMAS THORNER	3028	2nd Dec. 1863	Improvements in lubricating the shafts of the conducting pulleys of mules, which improvements are also applicable to machinery in general.
ENGLISH, ABRAHAM - -	1852	24th July 1863	Apparatus for securing and protecting horses and other cattle during their transit by rail and other ways, and on board ship.
ENTEE, WILLIAM CHARLES MC	417	16th Feb. 1863	Locks.
EPPS, ALEXANDER - - -	3124	11th Dec. 1863	Improvements in malt and hop kilns, which improvements are partly applicable to the ventilation and warming of buildings, and to the drying of various substances.
ERBA, HERCULES - - -	182	21st Jan. 1863	Certain improvements in jacquard machines. (Patented by Henry Bernoulli Barlow.)
ERICH, CHRISTIAN AUGUSTUS	597	3rd March 1863	Machinery for pressing peat. (Patented by Theodor Erich.)
ERICH, CHRISTIAN AUGUSTUS	2163	1st Sept. 1863	Machinery for pressing peat. (Patented by Theodor Erich.)
ERICH, THEODOR - - -	597	3rd March 1863	Machinery for pressing peat. (Communicated by Christian Augustus Erich.)
ERICH, THEODOR - - -	2163	1st Sept. 1863	Machinery for pressing peat. (Communicated by Christian Augustus Erich.)
ERLAM, FREDERICK KEATE -	1217	14th May 1863	A new lubricating material or compound.
ERWOOD, JOHN - - -	495	23rd Feb. 1863	Improvements in producing imitation gilding on paper hangings and other surfaces, also in metal leaf and metallic or bronze powder suitable for the purpose.
ETIENNE, ANDRÉ - - -	2994	30th Nov. 1863	Improvements in the construction of carriages and vehicles, and of wheels applicable thereto.
EVANS, ISAAC MARK - -	753	21st March 1863	Improved means for ventilating mines.
EVANS, ORMROD COFFEEN -	2676	29th Oct. 1863	Digging machinery.
EVANS, THOMAS - - -	1446	10th June 1863	Apparatus for applying one or more colors of ink to type in letter-press printing by hand.
EVANS, THOMAS MULLETT -	2629	24th Oct. 1863	Preparing cements and varnishes.
EVANS, WILLIAM - - -	2079	21st Aug. 1863	An improved artificial fuel.
EVRAS, EDME FERDINAND -	3070	7th Dec. 1863	Crinoline or hooped skirts. (Patented by Richard Archibald Brooman.)
EWEN, JAMES MC - - -	2277	17th Sept. 1863	A new or improved combined coke oven and hot blast oven or apparatus.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
EWENS, GEORGE WHIFFEN -	2164	1st Sept. 1863	Improvements in the manufacture of wadding paper and felted fabrics, and in the preparation of vegetable fibres to be used in such manufactures.
EXALL, WILLIAM - - -	1377	2nd June 1863	Valves and apparatus for regulating the speed of steam-engines. (Partly communicated by Frederic Perry.)
EXALL, WILLIAM - - -	1671	4th July 1863	Arrangement and construction of fixed and portable combined thrashing-machines.
EYLAND, CHARLES - -	14	2nd Jan. 1863	An improvement or improvements in the manufacture of buckles.
EYLES, JULIA - - -	766	23rd March 1863	Cheffonier bedsteads.
EYMIN, ALPHONSE - -	17	2nd Jan. 1863	Producing designs upon velvets, cloth, furniture hangings and similar materials. (Patented by Edward Thomas Hughes.)
EYNARD, LOUIS - - -	2557	19th Oct. 1863	Breaks for railway trains and other purposes.
EYTH, MICHEL EMILE - -	1662	4th July 1863	An improved rotative engine.

F.

FABRE, GEORGES - - -	211	23rd Jan. 1863	Mariners' compasses. (Patented by William Clark.)
FAGG, JESSE - - - -	2426	3rd Oct. 1863	Manufacture of boots and shoes.
FAGG, THOMAS - - - -	2426	3rd Oct. 1863	Manufacture of boots and shoes.
FAIRBANKS, WILLIAM BROOKES	2488	10th Oct. 1863	Manufacture of hames.
FAIRLEY, JAMES - - -	320	4th Feb. 1863	Manufacture of gun barrels.
FANSHAW, JOHN AMERICUS -	749	20th March 1863	Machines or apparatus for washing and wringing cloths or fabrics.
FARLAND, GEORGE BRADFORD [Mac.	2542	17th Oct. 1863	Rotary engines. (Patented by William Clark.)
FARMER, GEORGE PENRICE -	770	24th March 1863	Improvements in wrappers or papers for needles and in machinery or apparatus for sticking needles therein. (Patented by George Davies.)
FARMER, JAMES - - - -	1208	13th May 1863	Improvements in calendering, embossing and other such machines used for finishing woven fabrics, part of which improvements is also applicable to drying machines.
FARMER, JAMES - - - -	2318	19th Sept. 1863	Machinery or apparatus for making bricks, tiles or slabs and other such articles.
FARMER, MOSES GERRISH -	42	6th Jan. 1863	New alloys. (Patented by Charles Tiot Judkins.)
FARNDON, JOHN - - - -	1664	4th July 1863	Looms for weaving narrow fabrics.
FARR, ENOCH - - - -	1077	29th April 1863	An improvement in pianofortes.
FARRA, THOMAS - - - -	566	28th Feb. 1863	A new application and combination of materials to be employed in the manufacture of "skirtings."

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FARRA, THOMAS - - -	2738	5th Nov. 1863	Certain improvements in "skirtings" employed as wearing-apparel.
FARRAR, JAMES - - -	919	11th April 1863	Machinery or apparatus for twisting or doubling yarns of wool or other fibrous substances.
FARRAR, JAMES - - -	2412	2nd Oct. 1863	Machinery or apparatus for spinning and doubling wool, alpaca, mohair, cotton, silk, flax and other fibrous substances.
FASSIO, PHILIP - - -	1548	20th June 1863	A new method of connecting several fire places with one chimney.
FATTORINI, SANTINI - -	2107	26th Aug. 1863	A new division of time and the application thereof to mathematical and other instruments.
FAULDS, ROBERT - - -	6	1st Jan. 1863	Traction engines or common road locomotives.
FAULKNER, CHARLES - -	320	4th Feb. 1863	Manufacture of gun barrels.
FAULKNER, DAVID - - -	320	4th Feb. 1863	Manufacture of gun barrels.
FAULKNER, SAMUEL - - -	2795	10th Nov. 1863	Apparatus for grinding cards used in carding-engines.
FAULKNER, SAMUEL - - -	2796	10th Nov. 1863	Carding-engines.
FAURE, JEAN BAPTISTE VIN- [CENT.	2054	18th Aug. 1863	Pen and ink holders.
FAURE, PIERRE - - -	860	4th April 1863	Improved apparatus for bolting flour. (Patented by William Edward Gedge.)
FAVA, ENRICO - - -	1175	9th May 1863	Rotatory engines. (Patented by John Henry Johnson.)
FAVA, ENRICO - - -	2684	18th Nov. 1863	Rotatory engines. (Patented by John Henry Johnson.)
FAWCETT, JOHN - - -	1279	21st May 1863	Preparation of food for cattle, horses and other animals.
FAWCUS, GEORGE - - -	2923	20th Nov. 1863	Connecting scaling, fire and other like ladders.
FEHR, HENRY - - -	551	27th Feb. 1863	Treatment of mineral oils.
FEICHTINGER, FRANZ - -	1587	23rd June 1863	Improvements in the manufacture of paper applicable for hemorrhoidal complaints.
FELDTRAPPE, ACHILLE AU- [GUSTE.	544	26th Feb. 1863	Improvements in the manufacture of buttons and in apparatus for the same. (Patented by William Clark.)
FELL, JOHN BARRACLOUGH -	227	26th Jan. 1863	Improvements in working railway engines and carriages on steep inclines.
FELL, JOHN BARRACLOUGH -	3182	16th Dec. 1863	Railway engines, carriages, and permanent way for steep inclines.
FELLOWES, THOMAS - - -	1910	1st Aug. 1863	Apparatus for elevating straw and other agricultural produce.
FELLOWES, NOAH - - -	2481	9th Oct. 1863	An improved method of extinguishing fires in chimneys and flues, regulating and promoting draught therein, calculated also to act as a ventilator.
FELSCH, HEINRICH - - -	546	26th Feb. 1863	Furnaces and apparatus for manufacturing oxide of zinc or zinc white. (Patented by James Humby.)
FENBY, JOSEPH BEVERLEY -	101	13th Jan. 1863	A new or improved instrument or apparatus to be attached to pianofortes, organs and other similar keyed musical instruments, for printing the score of any music performed on the said instruments.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FENNER, REST - - -	1245	18th May 1863	Envelope folding machines.
FENTON, FERRAR - - -	90	10th Jan. 1863	Manufacture of pulp for paper making and similar purposes.
FENTON, FERRAR - - -	1252	19th May 1863	Treatment of certain vegetable fibres for the preparation of textile materials therefrom.
FENTON, FERRAR - - -	2931	21st Nov. 1863	Treatment of vegetable fibres for the production of paper pulp or half stuff therefrom.
FERNIE, JOHN - - -	3001	30th Nov. 1863	Machinery for shaping the edges of boiler and other plates.
FERRAND, GEORGE - - -	901	9th April 1863	Certain improvements in apparatus for supplying oil or other liquid lubricant to frictional surfaces.
FERRERO, VITTOZIO SECONDO	658	9th March 1863	Improvements in the treatment of certain fibrous vegetable substances with a view to the production of textile materials therefrom. (Patented by John Henry Johnson.)
FERRETT, CHARLES - - -	957	16th April 1863	Preventing incrustation in steam-boilers.
FERRIER, ROBERT - - -	134	15th Jan. 1863	Wet gas-meters.
FERRIS, JOHN PARDOE - - -	944	15th April 1863	Fire bars for the furnaces of steam-boilers and fire grates.
FERRIS, JOHN PARDOE - - -	2517	14th Oct. 1863	Improvements in fire bars for the furnaces of steam-boilers and the mode of mounting the same.
FERRY, AMAND HYACINTHE -	2918	20th Nov. 1863	Making hammers for piano-fortes.
FIELD, JOHN WILLIAM PARKER	1913	3rd Aug. 1863	Manufacture of sheaths or cases for staves or other similar weapons.
FILLEUL, LOUIS FRANÇOIS -	107	13th Jan. 1863	Improvements in machinery for lifting bobbins off spindles in spinning machines, and in lubricating spindles. (Patented by Richard Archibald Brooman.)
FILLION, LOUIS LAURENT [JACQUES.	1842	23rd July 1863	Improvements in apparatus for extinguishing chimney fires and in preventing explosions.
FINCH, EDWARD - - -	2935	21st Nov. 1863	Constructing the floors of bridges, houses and other buildings.
FIORAVANTI, PASCAL NICOLAS [BALTHAZAR.	940	14th April 1863	Hardening and coloring gypseous limestone and sand and calcareous stones. (Patented by Richard Archibald Brooman.)
FIRTH, AMOS - - -	2355	24th Sept. 1863	Improvements in furnaces for heating wheel hoops, applicable also for other similar purposes.
FIRTH, RICHARD HASTINGS -	297	2nd Feb. 1863	Manufacture of paper.
FIRTH, SAMUEL - - -	1888	30th July 1863	Improvements in machinery and apparatus for working coal and other mines, and in apparatus for loading waggons or other vehicles.
FIRTH, SAMUEL - - -	2659	27th Oct. 1863	Machinery for cutting and boring coal, stone or other minerals.
FIRTH, SAMUEL - - -	3066	7th Dec. 1863	Certain improvements in machinery for cutting and boring coal, stone or other minerals.
FIRTH, WILLIAM - - -	1888	30th July 1863	Improvements in machinery and apparatus for working coal and other mines, and in apparatus for loading waggons or other vehicles.

[Fir]

ALPHABETICAL INDEX OF PATENTEES

[Fon]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FIRTH, WILLIAM - - -	2659	27th Oct. 1863	Machinery for cutting and boring coal, stone or other minerals.
FIRTH, WILLIAM - - -	3066	7th Dec. 1863	Certain improvements in machinery for cutting and boring coal, stone or other minerals.
FISCHER, MAURICE - - -	2413	2nd Oct. 1863	Obtaining motive-power.
FISHER, HENRY - - -	3092	8th Dec. 1863	Lawn mowing and grass cutting machines. (Patented by James Edward Boyd.)
FITCH, PORTER - - -	2925	20th Nov. 1863	Improvements in the means of and instruments for attaching tags or labels to bales or packages of merchandize. (Patented by William Edward Newton.)
FITTER, JOSEPH - - -	520	25th Feb. 1863	An improvement or improvements in the construction of castors for tables, chairs and other furniture or other articles.
FITTON, EDWARD GERRARD -	1959	7th Aug. 1863	Engines for carding cotton and other fibrous materials.
FITTON, FREDERICK ALEX- [ANDER.]	1959	7th Aug. 1863	Engines for carding cotton and other fibrous materials.
FITZ GIBBON, VICTOR BEARE-	3229	21st Dec. 1863	Spring mattresses or beds and cushions.
FITZWILLIAM, FREDERICK [HERBERT.]	3222	21st Dec. 1863	Steering of ships and other floating bodies.
FLAVELL, FREDERICK - -	2027	15th Aug. 1863	Shakers for thrashing-machines.
FLEISCHMANN, CHARLES LOUIS	2310	19th Sept. 1863	Machinery or apparatus for ginning cotton, also for cleaning, opening and preparing cotton, wool or other fibrous substances.
FLEMING, ANDREW - - -	2265	16th Sept. 1863	Improvements in cutting or finishing matting and similar fabrics, and in the machinery used therefor.
FLEMING, JAMES - - -	2069	20th Aug. 1863	Preserving the colours of dyed fabrics.
FLETCHER, HENRY - - -	659	11th March 1863	Cleaning and preparing cotton for spinning.
FLETCHER, JOSEPH - - -	304	3rd Feb. 1863	An improved injector or apparatus for feeding boilers with water.
FLETCHER, THOMAS BELL EL- [COCK.]	953	15th April 1863	Apparatus for collecting the solid portions of sewage.
FLETCHER, THOMAS HANMER-	3102	9th Dec. 1863	An improved war rocket and rocket tube.
FLETCHER, WILLIAM - -	2554	19th Oct. 1863	Construction of breech-loading fire-arms.
FLEURMAN, JEANNETTE - -	3078	8th Dec. 1863	Crinolines.
FLEURY, ANTOINE LEONARD -	2122	28th Aug. 1863	Manufacture of iron and steel from the cinders and refuse of puddling and other furnaces, and from certain kinds of ores. (Patented by George Davies.)
FLEXEN, STEPHEN - - -	2530	15th Oct. 1863	An improved apparatus for ventilating railway and other carriages, houses, buildings, steam and sailing vessels of all kinds moveable or otherwise.
FLUDE, ROBERT - - -	1664	4th July 1863	Looms for weaving narrow fabrics.
FOLLETT, JESSE - - -	1002	22nd April 1863	Shoes, boots and other coverings for the feet. (Patented by Henry Bernoulli Barlow.)
FOLLETT, JESSE - - -	2570	20th Oct. 1863	Shoes, boots and other coverings for the feet. (Patented by Henry Bernoulli Barlow.)
FONTAINE MOREAU, PETER [ARMAND LECOMTE DE	1697	8th July 1863	A new mode of roofing houses, buildings and other structures. (Communicated by Messieurs Gaduel, Boisserane and Garnier.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FONTAINEMOREAU, PETER AR- [MAND LECOMTE DE	2342	23rd Sept. 1863	Certain improvements in centrifugal machines for treating saccharine substances, part of the same being applicable to other centrifugal machines. (Communicated by Mr. Charles Hänsel.)
FORBES, ALEXANDER - - -	295	2nd Feb. 1863	Means or apparatus for soldering together parts of vessels formed of tin or tinned plate.
FORBES, HUGH - - -	1691	8th July 1863	An improved method of propelling and steering ships.
FORBES, HUGH - - -	1975	11th Aug. 1863	An improved rotary pump.
FORD, ALFRED - - -	985	21st April 1863	An improved method of reforming and re-using old or waste vulcanized india-rubber.
FORD, DAVID - - -	2820	12th Nov. 1863	Propelling boats and barges.
FORD, FREDERICK - - -	1863	27th July 1863	Manufacture of various articles with surfaces in imitation of different kinds of marbles or similar ornamental materials.
FORD, LEWIS - - -	1863	27th July 1863	Manufacture of various articles with surfaces in imitation of different kinds of marbles or similar ornamental materials.
FORD, WILLIAM CHARLES -	429	17th Feb. 1863	An improvement in paddle wheels.
FORGIE, WILLIAM - - -	740	19th March 1863	Apparatus for the purpose of clearing out the interior of foul chimnies or flues when on fire or otherwise.
FORREST, HENRY PHILIP -	3263	24th Dec. 1863	Apparatus for drawing off and measuring fluids.
FORREST, ROBERT - - -	3102	9th Dec. 1863	An improved war rocket and rocket tube.
FORREST, WILLIAM - - -	828	31st March 1863	Looms for weaving.
FORRESTER, JOHN - - -	1492	15th June 1163	Improvements in the manufacture of bricks, quarries, slabs, tiles, earthenware pipes, and other earthenware or ceramic articles.
FORTIN, LOUIS VICTOR - -	2219	9th Sept. 1863	Paving roads or ways. (Patented by William Edward Gedge.)
FORTUNE, JOHN - - -	1110	4th May 1863	Improved means of joining or fastening together lace, blond, quilling or similar materials.
FOSTER, RANDOLPH - - -	1702	8th July 1863	Construction of locks and fastenings. (Patented by William Edward Newton.)
FOSTER, SAMUEL HALL - -	623	5th March 1863	Means or apparatus for the manufacture of looped fabrics.
FOTHERGILL, BENJAMIN -	3158	14th Dec. 1863	Machinery or apparatus for combing wool and other fibrous substances.
FOTTRELL, JOHN - - -	2802	11th Nov. 1863	Deodorizing petroleum and other mineral oils.
FOULDS, JEREMIAH - - -	1579	23rd June 1863	Looms for weaving.
FOULDS, JEREMIAH - - -	3090	8th Dec. 1863	Looms for weaving.
FOURDRINIER, GEORGE HENRY	876	7th April 1863	Improvements in machinery or apparatus for drying grain, applicable also to the manufacture of malt. (Patented by John Henry Johnson.)
FOWLER, JOHN - - -	2513	13th Oct. 1863	Apparatus used for hauling agricultural implements.
FOX, HOWARD BUSBY - - -	892	9th April 1863	Dish covers.
FOX, JOSEPH - - -	2264	16th Sept. 1863	Machinery for planing or cutting off the sides of armour plates.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FOX, SAMSON - - -	2595	22nd Oct. 1863	Machinery or apparatus for punching, shearing and burnishing.
FOX, THOMAS - - -	2500	12th Oct. 1863	Improved apparatus for cleaning out the tubes of steam-boilers, which apparatus is also applicable for cleaning out other tubes.
FRANCIS, ARTHUR EDWARD -	4	1st Jan. 1863	Manufacture of elastic fabrics.
FRANCIS, ISAAC - - -	2901	19th Nov. 1863	Improvements in and apparatus for washing, cleaning and separating impurities from small coal, coke, ashes or cinders.
FRANCIS, SAMUEL WILLIAM -	255	28th Jan. 1863	Revolving shutters.
FRASER, ALEXANDER JOHN -	409	14th Feb. 1863	Window furniture or fastenings.
FRASER, ALEXANDER JOHN -	1509	16th June 1863	Apparatus applied to house and carriage window sashes for the working and fastening thereof.
FRASER, JAMES - - -	2308	19th Sept. 1863	An improved method of constructing magazines for the safer and more economical storing of volatile oils, in localities where the ground and labor are expensive. (Communicated by Moritz Pinner.)
FRASER, JOHN HENRY - -	681	13th March 1863	Machinery for rolling armour plates, bridge plates, boat plates and other plates and bars of iron.
FRAY, CHARLES - - -	172	20th Jan. 1863	Apparatus for retarding and stopping railway carriages. (Patented by Michael Henry.)
FREY, ALEXANDER - - -	680	13th March 1863	Certain improvements in looms for weaving. (Patented by Henry Bernoulli Barlow.)
FREZON, FRUMENCE NICOLAS	1402	5th June 1863	Treating liquorice root to obtain liquid and solid extracts therefrom. (Patented by Richard Archibald Brooman.)
FRIEDERICH, GUSTAV WIL- [HELM EDUARD.	1418	8th June 1863	The manufacture of a new ink.
FRIEDLANDER, MORRITZ -	3112	10th Dec. 1863	Improved machinery for the treatment of tow and other fibrous substances.
FRIEND, GEORGE - - -	2208	8th Sept. 1863	Improvements in treating excrementitious and sewage matters, and in the means or apparatus employed therein.
FRIEND, JOHN WALKER - -	2598	22nd Oct. 1863	An improved valve and valve gear for regulating the passage or flow of fluids.
FRIEND, JOHN WALTER - -	565	28th Feb. 1863	An improved gas-meter.
FRIEND, JOHN WALTER - -	2102	26th Aug. 1863	Improvements in the construction of gas-meters and in apparatus to be employed in connection therewith for regulating the pressure and flow of gas to the same.
FRY, JAMES - - -	555	27th Feb. 1863	Mashing machinery used in making fermented liquors.
FRY, JAMES - - -	2112	26th Aug. 1863	Mashing machinery used in making fermented liquors.
FULLARTON, JOHN ALEXANDER	1967	10th Aug. 1863	Improvements in the method of fastening hoops for packing bales, and in the machinery or apparatus employed therein.
FULLER, GEORGE WASHINGTON	1065	28th April 1863	A new and useful or improved submarine lantern to be used in explorations beneath the surface of the ocean or any other large body of water.
FULTON, GEORGE ALEXANDER	664	11th March 1863	Dry gas-meters.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
FUMET, JACQUES - - -	2002	13th Aug. 1863	Safely closing doors, windows and other apertures. (Patented by Charles Tessier.)
FUNNELL, EDWARD - - -	1767	15th July 1863	A self-acting electro-magnetic clock work signal for railway purposes.
FURLEY, ROBERT CHARLES -	1422	8th June 1863	Preparation of castor and other oils for medicinal use.
FURNESS, HENRY DAVID -	1475	12th June 1863	Improvements in the prevention of smoke in steam-boilers' and other furnaces. (Patented by John Furness Tone.)
FURNIVAL, RICHARD - - -	827	31st March 1863	Improvements in and applicable to platting or braiding machines.
FURNIVAL, RICHARD - - -	2957	24th Nov. 1863	Braiding machines.
FUSNOT, CHARLES - - -	2597	22nd Oct. 1863	Certain improvements in the manufacture of cartridge bottoms or entire cartridges composed entirely of the same elements.
FYFE, JAMES - - - - -	229	26th Jan. 1863	Safety apparatus for steam-boilers.
FYFE, DOUGLAS MONRO - -	1221	15th May 1863	Improvements in the brushes, instruments or apparatus employed for painting the centres and bulls-eyes of military or other targets.
FYFE, DOUGLAS MONRO - -	1222	15th May 1863	Means or apparatus employed for raising, removing, transporting and refixing military or other targets or mantlets.
FYFE, DOUGLAS MUNRO - -	2825	12th Nov. 1863	Carriages and apparatus for raising, removing and transporting heavy bodies from place to place.

G.

GADD, WILLIAM, the younger -	2685	30th Oct. 1863	Improvements in machinery or apparatus for the manufacture of bonnet and cap fronts, which improvements are also applicable to the production of ornamental effects to other trimmings for wearing apparel.
GAILEY, JOSEPH - - - -	525	25th Feb. 1863	Apparatus for the purpose of supplying air for mixture with gases and other aëriiform fluids.
GALLOWAY, JOHN - - - -	2066	20th Aug. 1863	Improvements in steam-boilers and in steam and water gauges for the same.
GALLOWAY, JOHN - - - -	2343	23rd Sept. 1863	Improvements in lubricating journals of revolving shafts and axles, and in the apparatus employed for that purpose.
GALLOWAY, JOHN - - - -	3110	10th Dec. 1863	Improvements in presses for bending metal plates into the various forms required in naval architecture and for other purposes. (Communicated by John Cochrane.)
GALLOWAY, WILLIAM - - -	2066	20th Aug. 1863	Improvements in steam-boilers and in steam and water gauges for the same.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GALLOWAY, WILLIAM - -	2843	23rd Sept. 1863	Improvements in lubricating journals of revolving shafts and axles, and in the apparatus employed for that purpose.
GALLOWAY, WILLIAM - -	3110	10th Dec. 1863	Improvements in presses for bending metal plates into the various forms required in naval architecture and for other purposes. (<i>Communicated by John Cochrane.</i>)
GAMMON, CHARLES - -	1333	27th May 1863	An improved spring fastening.
GAND, HENRI - -	337	6th Feb. 1863	Improvements in carding-engines, whereby slivers are formed into threads ready for spinning. (<i>Patented by Richard Archibald Brooman.</i>)
GANNE, JULES LOUIS - -	1525	18th June 1863	Toy pistols.
GANNON, AUGUSTE - -	1199	13th May 1863	Laying submarine telegraph cables. (<i>Patented by Richard Archibald Brooman.</i>)
GARDNER, PIERRE - -	2114	26th Aug. 1863	Obtaining and applying motive-power. (<i>Patented by John Henry Johnson.</i>)
GARDNER, PERRY GREEN -	3007	1st Dec. 1863	Improvements in railroad car springs.
GARDNER, CHARLES HENRY -	1629	30th June 1863	Lithographic and zincographic presses.
GARDNER, EDWARD - -	2986	27th Nov. 1863	Looms for weaving elastic fabrics.
GARDNER, EDWARD VINCENT	48	6th Jan. 1863	Improvements in the treatment of petroleum and mineral oils and in apparatus employed therein.
GARDNER, PETER - -	3192	18th Dec. 1863	Improvements in the construction of ordnance and in projectiles to be used therewith.
GARFORTH, JAMES - -	1845	23rd July 1863	Certain improvements in preparing, beetling or finishing textile fabrics such as cotton, wool, linen or other fibrous materials.
GARFORTH, WILLIAM - -	1845	23rd July 1863	Certain improvements in preparing, beetling or finishing textile fabrics such as cotton, wool, linen or other fibrous materials.
GARNIER - -	1697	8th July 1863	A new mode of roofing houses, buildings and other structures. (<i>Patented by Peter Armand Lecomte de Fontaine Moreau.</i>)
GARTON, CHARLES - -	594	2nd March 1863	An improved method of applying heat in the manufacture and refining of sugar, and in malting, hop drying, brewing, distilling and vinegar making.
GARTON, CHARLES - -	1932	5th Aug. 1863	Evaporating and cooling.
GARTON, CHARLES - -	2575	20th Oct. 1863	Improvements in evaporating, cooling and melting, and in apparatus employed therein.
GARVIE, PETER - -	601	3rd March 1863	Improvements in warp dressing and in apparatus connected therewith. (<i>Patented by James Pollard.</i>)
GASKELL, PETER - -	2989	27th Nov. 1863	Tell tales or indicators for cabs and such like public vehicles.
GATTY, FREDERICK ALBERT -	517	25th Feb. 1863	Printing and dyeing cotton and other fabrics.
GAUTHIER, LEON - -	1829	21st July 1863	Apparatus for condensing steam. (<i>Patented by Emile Aicm.</i>)
GAUTHIER, LEON - -	2323	21st Sept. 1863	Shears for cutting metal threads, wires and rods, applicable also for gauging wires. (<i>Patented by Emile Aicm.</i>)

[Gen]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Ged]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GAUCHEZ, LEON - - -	2324	21st Sept. 1863	Condensers applicable to wool carding-engines. (Patented by Emile Alcan.)
GAUDIN, MARC ANTOINE AU- [GUSTIN.]	2852	14th Nov. 1863	Treatment or manufacture of wrought and cast iron and steel. (Patented by William Edward Newton.)
GAUNTLETT, WILLIAM HENRY	485	23rd Feb. 1863	Apparatus for heating the blast in the manufacture of iron.
GAUTHIER, JACQUES VICTOR -	1536	19th June 1863	Machinery for the manufacture of bolts and rivets. (Patented by Henri Adrien Bonneville.)
GAVIN, ROBERT - - -	844	1st April 1863	Preservation of perishable liquids during the withdrawal or consumption thereof.
GAY, PAULIN - - -	946	15th April 1863	Apparatus for the transport of goods. (Patented by William Clark.)
GAY, PAULIN ETIENNE - -	1857	25th July 1863	Boring apparatuses.
GEDGE, WILLIAM EDWARD -	246	28th Jan. 1863	Improved machinery or apparatus for fastening by screws boots, shoes and other articles composed of leather. (Communicated by Henry Chrétien Cordes and Leonard Wainschénck.)
GEDGE, WILLIAM EDWARD -	278	30th Jan. 1863	Improved apparatus for cleansing chimneys or other flues. (Communicated by Eutrope Malavergne.)
GEDGE, WILLIAM EDWARD -	279	30th Jan. 1863	Cones or forms for moulding refined sugar. (Communicated by Ferdinand Wittmann.)
GEDGE, WILLIAM EDWARD -	283	30th Jan. 1863	Hair nets. (Communicated by Edmond Paul Gilet.)
GEDGE, WILLIAM EDWARD -	387	13th Feb. 1863	Improved table apparatus for promoting the comfort of persons at sea. (Communicated by Hyacinthe Clare.)
GEDGE, WILLIAM EDWARD -	502	24th Feb. 1863	Manufacture of hats. (Communicated by Guillaume Madelaine Lacaze.)
GEDGE, WILLIAM EDWARD -	637	6th March 1863	Steam-engines. (Communicated by Jules Mouvet.)
GEDGE, WILLIAM EDWARD -	689	14th March 1863	An improved plough. (Communicated by Jean Germain Felix Clamageran.)
GEDGE, WILLIAM EDWARD -	713	17th March 1863	Modes or means for framing pictures, looking glasses and other objects. (Communicated by Antoine Auvray.)
GEDGE, WILLIAM EDWARD -	860	4th April 1863	Improved apparatus for bolting flour. (Communicated by Jacques Chiron, André Chiron and Pierre Faure.)
GEDGE, WILLIAM EDWARD -	867	6th April 1863	Aërial machines. (Communicated by Pierre Jacques Carmien.)
GEDGE, WILLIAM EDWARD -	888	8th April 1863	Apparatus for propelling and navigating small craft. (Communicated by Hilaire André Levallois.)
GEDGE, WILLIAM EDWARD -	1049	27th April 1863	Improvements in twyers or blast pipes and in apparatus connected therewith. (Communicated by Jean Baptiste Monsallié.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GEDGE, WILLIAM EDWARD -	1078	29th April 1863	An improved system of permanent advertisement. (Communicated by Basile Victor Larssonneau.)
GEDGE, WILLIAM EDWARD -	1129	6th May 1863	An improved toy. (Communicated by Paul Bonfils.)
GEDGE, WILLIAM EDWARD -	1163	9th May 1863	Manufacture of paper stuff or pulp from certain vegetable substances. (Communicated by Lucien Bardoux.)
GEDGE, WILLIAM EDWARD -	1419	8th June 1863	Construction of kites. (Communicated by Joseph Louis Horsin.)
GEDGE, WILLIAM EDWARD -	1611	26th June 1863	Improved apparatus for placing tyres on wheels or hooping or ferruling generally, while the metal is hot. (Communicated by Charles Imhoff.)
GEDGE, WILLIAM EDWARD -	1687	7th July 1863	Construction of seats, chairs, sofas, lounges and other similar articles of furniture. (Communicated by François Carré.)
GEDGE, WILLIAM EDWARD -	1688	7th July 1863	Improved apparatus for milking. (Communicated by Louis Grasset.)
GEDGE, WILLIAM EDWARD -	1814	20th July 1863	Improvements applicable to inland navigation. (Communicated by Charles Jacques Isaac Troll and François Jacques Mercier.)
GEDGE, WILLIAM EDWARD -	2101	25th Aug. 1863	Machinery or apparatus to be used in the manufacture of candles. (Communicated by Chretien Haffner.)
GEDGE, WILLIAM EDWARD -	2150	31st Aug. 1863	An improved watch. (Communicated by Charles Jaeger.)
GEDGE, WILLIAM EDWARD -	2219	9th Sept. 1863	Paving roads or ways. (Communicated by Louis Victor Fortin.)
GEDGE, WILLIAM EDWARD -	2256	14th Sept. 1863	Safety lamps for mines. (Communicated by François Chapuis and Léonce Decombette.)
GEDGE, WILLIAM EDWARD -	2279	17th Sept. 1863	Improved instruments for ascertaining levels, also for computing angles. (Communicated by Jean Baptiste Chair-grasse.)
GEDGE, WILLIAM EDWARD -	2361	28th Sept. 1863	Improved apparatus for heating by means of illuminating gas. (Communicated by Paulin Amédée Charpentier.)
GEDGE, WILLIAM EDWARD -	2390	29th Sept. 1863	Permanent way of railways. (Communicated by Narcisse Antoine Brocot and Aimé Labarre.)
GEDGE, WILLIAM EDWARD -	2417	2nd Oct. 1863	An improved pen holder and feeder. (Communicated by Jean Marie Laurent.)
GEDGE, WILLIAM EDWARD -	2501	12th Oct. 1863	Shears for cutting metals and other substances. (Communicated by Hugues François Aubert.)
GEDGE, WILLIAM EDWARD -	2643	26th Oct. 1863	An improved pillow. (Communicated by Ernest Lorient.)
GEDGE, WILLIAM EDWARD -	2663	28th Oct. 1863	An improved system of permanent advertisement. (Communicated by Basile Victor Larssonneau.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GEDGE, WILLIAM EDWARD -	2819	12th Nov. 1863.	Improved process and apparatus for amalgamating the precious metals. (Communicated by Jean Baptiste Baur and Alexis Guio.)
GEDGE, WILLIAM EDWARD -	3011	1st Dec. 1863	An improved plough. (Communicated by Jean André Isidore Pharisier.)
GEDGE, WILLIAM EDWARD -	3206	19th Dec. 1863	Improved apparatus for racking and decanting liquids. (Communicated by Clément Laburthe.)
GEDGE, WILLIAM EDWARD -	3238	22nd Dec. 1863	Improvements in the knives used for the cylinders and blocks of rag cutting or beating engines, the same arrangement of knives being also applicable to the crushing or beating of other substances. (Communicated by F. Meyer.)
GEDGE, WILLIAM EDWARD -	3247	23rd Dec. 1863	An improved apparatus for fixing candles upright in candlesticks. (Communicated by Emile Daire.)
GEDGE, WILLIAM EDWARD -	3262	24th Dec. 1863	An improved kneading-machine. (Communicated by Jean Antoine Kautret.)
GEDGE, WILLIAM EDWARD -	3298	30th Dec. 1863	An improved teasing machine. (Communicated by Paul Joseph Vasset, senr.)
GÉLIS, AMÉDÉE - - -	2222	9th Sept. 1863	Means of utilizing refuse azoted matters of commerce for the manufacture of various chemical products. (Patented by William Clark.)
GEORGE, BENJAMIN GEORGE -	2436	5th Oct. 1863	Tablets, show bills and trade announcements used for advertising and other purposes.
GERARD, GUSTAVE EUGENE [MICHEL.	1668	4th July 1863	Improvements in the manufacture of telegraphic wires and in the apparatus connected therewith. (Patented by Henri Adrien Bonneville.)
GERHARDT, WILLIAM - -	2293	18th Sept. 1863	Improvements in the manufacture of iron and steel, and in apparatus to be employed in such manufacture. (Patented by George Davies.)
GERISH, SAMUEL - - -	2202	7th Sept. 1863	Improvements in machinery for morticing, drilling, dovetailing and cutting wood, and in tools to be used for morticing.
GERLAND, BALTHAZAR WIL- [HELM.	1914	3rd Aug. 1863	Manufacture of size, glue and phosphates.
GERSTENHOFER, MORITZ -	2245	11th Sept. 1863	An improved construction of furnace for roasting pyrites.
GETTY, JOHN - - -	2703	31st Oct. 1863	Building ships and vessels.
GEYELIN, GEORGE KENNEDY -	439	18th Feb. 1863	An improved grate whereby the perfect combustion of the various compounds of coal is produced.
GEYELIN, GEORGE KENNEDY -	2835	13th Nov. 1863	Improvements in the construction of water-closets.
GILAIN, AUGUSTE - - -	1666	4th July 1863	Steam-engines. (Patented by Henri Adrien Bonneville.)
GIBB, WALTER - - -	2345	23rd Sept. 1863	Looms for weaving.
GIBBON, VICTOR BEARE FITZ -	3229	21st Dec. 1863	Spring mattresses or beds and cushions.
GIBBS, JOSEPH - - -	1235	16th May 1863	Improvements in preparing and spinning flax and other vegetable fibres and filaments, and in machinery employed therein.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GIBSON, JAMES JOHN - -	1066	28th April 1863	Improvements in drying and cooling grain and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
GIBSON, JOHN . - -	294	2nd Feb. 1863	Looms for weaving.
GIBSON, JOHN - - -	1696	8th July 1863	Breech-loading fire-arms.
GIBSON, JOHN - - -	2459	7th Oct. 1863	Cast-iron pit tubing.
GIBSON, JOHN WILLIAM - -	1102	2nd May 1863	Improvements in springs to be used for railway buffers, draw hooks, and also for carrying springs of railway carriages and other vehicles.
GIDLOW, THOMAS - - -	2499	12th Oct. 1863	Certain improvements in bearings for axles for railway or other carriages.
GIFFARD, HENRY - - -	1953	7th Aug. 1863	Apparatus for preventing sea sickness. (Patented by John Henry Johnson.)
GILBEE, HENRY - - -	873	7th April 1863	A new composition for dressing and preparing silk, cotton and woollen tissues and fibres, and also mixtures of the same. (Communicated by Jacques Mathevon.)
GILBEE, HENRY - - -	2553	19th Oct. 1863	An improved composition for rendering boots and shoes and other similar articles waterproof. (Communicated by Mr. Louis Poncelet.)
GILET, EDMOND PAUL - -	283	30th Jan. 1863	Hair nets. (Patented by William Edward Gedge.)
GILL, JOHN - - -	925	13th April 1863	Printing-machinery.
GILL, JOSEPH - - -	324	5th Feb. 1863	Apparatus for polishing yarn, twine, threads and other similar materials.
GILLETT, ABRAM - - -	2730	4th Nov. 1863	Machines for cutting chaff and such like substances.
GILLOD, THOMAS WALKER -	1957	7th Aug. 1863	Manufacture of chess boards and chess men.
GILPIN, WILLIAM - - -	234	27th Jan. 1863	Fastenings of umbrellas and parasols.
GIMSON, JOSIAH - - -	430	17th Feb. 1863	Presses for punching or cutting out leather and other substances.
GIMSON, JOSIAH - - -	861	4th April 1863	Means of actuating shuttles in looms for weaving narrow fabrics.
GIMSON, JOSIAH - - -	912	10th April 1863	Screw cutting lathes.
GIMSON, JOSIAH - - -	1665	4th July 1863	Improvements in shuttles for weaving narrow fabrics, and in mounting and fitting them to the battens.
GINESTON, JOSEPH - - -	1903	1st Aug. 1863	An improved warming pan. (Patented by Richard Archibald Brooman.)
GIRARD, CHARLES - - -	717	17th March 1863	Manufacture of brown colouring matters. (Patented by Georges De Laire.)
GIRARD, HIPPOLYTE BENIGNE	1313	25th May 1863	Improvements in the heating of every industrial and private apparatus by means of the oxygen and hydrogen gases combined and obtained from the decomposition of water.
GIRARD, XAVIER FLORENTIN -	1639	1st July 1863	Improvements in coating or covering metal sheets with metals or alloys, and in the apparatus employed therein. (Patented by John Henry Johnson.)
GIRARDIN, PAUL HYACINTHE	1877	29th July 1863	Lamps.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GISBORNE, FREDERIC NEWTON	210	23rd Jan. 1863	Improvements in the means of communicating signals on board ship and of indicating the position of the rudder.
GISBORNE, FREDERIC NEWTON	2680	30th Oct. 1863	An improved composition for coating ships' bottoms.
GISBORNE, FREDERIC NEWTON	3208	19th Dec. 1863	Improvements in the means of communicating signals on board ship, on railways and for other purposes.
GISBORNE, JOHN SACHEVERELL	401	14th Feb. 1863	Means for rendering ships' and other compasses insensible to local attraction.
GITS, JEAN FRANÇOIS - -	603	4th March 1863	An improved furnace for the revivification of animal charcoal.
GITTUS, ROBERT - - -	927	13th April 1863	Construction of machinery or apparatus for cutting chaff and other agricultural produce.
GJERS, JOHN - - - -	3240	22nd Dec. 1863	Lifts or machinery or apparatus for raising and lowering weights.
GJERS, JOHN - - - -	3273	28th Dec. 1863	Kilns for calcining ironstone and limestone.
GLADSTONE, HENRY - -	2840	14th Nov. 1863	Manufacture of skin cartridges.
GLEAVE, WILLIAM - - -	1383	2nd June 1863	Certain improvements in apparatus for feeding or supplying water to steam-boilers.
GLEERUP, ABRAHAM - -	2372	26th Sept. 1863	An improved construction of gas-burner. (Communicated by Otto Frederick Kolvig Peterson.)
GLOAG, HENRY DUNDAS -	3180	16th Dec. 1863	Construction of rotary pumps.
GLOSSOP, ARTHUR OSBORNE -	215	24th Jan. 1863	Certain improvements in the construction and manufacture of breakfast, cruet and liquor frames used in dinner and other services.
GLOVER - - - - -	3226	21st Dec. 1863	Mode of and apparatus for controlling the passage of fluids to and from casks and other vessels. (Patented by Michael Henry.)
GLOVER, GEORGE - - -	3017	1st Dec. 1863	Improvements in dry gas-meters.
GLOVER, WILLIAM - - -	1124	5th May 1863	Means or apparatus to facilitate the steering of ships and other vessels.
GLYDON, WILLIAM, the younger	2217	9th Sept. 1863	Improvements in apparatus and machinery for the manufacture of metallic tubes and hollow cylinders, part of which improvements may also be applied to the casting of other hollow bodies.
GMINDER, WILHELM - -	2766	7th Nov. 1863	Certain improvements in looms for weaving. (Patented by Thomas Critchley Barraclough.)
GODARD, EUGENE - - -	2959	24th Nov. 1863	Balloons or aeronautic apparatus. (Patented by William Edward Newton.)
GODARD-DESMAREST, HYPO- [LITE.	84	9th Jan. 1863	Furnaces. (Patented by Michael Henry.)
GODEFROY, PETER AUGUSTIN -	1719	10th July 1863	Mode of purifying oils.
GOLDIE, THOMAS - - -	3203	19th Dec. 1863	Looms for weaving.
GOLL, ALEXANDER, THEODOR [NICHOLAUS.	1554	20th June 1863	Manufacture of mountings or settings for precious or other stones.
GOOCH, ROBERT - - -	2909	19th Nov. 1863	Improved wrought-iron sheeting piles.
GOODE, BENJAMIN WILLIAM -	808	28th March 1863	A new journal axle or bearing particularly applicable to rolls.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GOODMAN, JOSEPH - - -	1280	21st May 1863	Improvements in velocipedes and in the construction of wheels for the same and other carriages.
GOODRICH, HENRY WARE -	1385	3rd June 1863	Improved means of securing identifying labels or tags to bales of fibrous material. (Patented by Edward Augustus Locke.)
GOOLD, JOSEPH - - -	1819	20th July 1863	Manufacture of ink.
GORDON, ROBERT WILSON -	1498	15th June 1863	Machinery for spinning flax and other fibrous substances.
GORDON, THOMAS - - -	240	27th Jan. 1863	An improved method of and apparatus for damping and affixing postage stamps to letters.
GORDON, THOMAS BROWN -	2230	10th Sept. 1863	Improvements in granulating and drying gunpowder, and in apparatus to be used therefor.
GORE, GEORGE - - -	1338	28th May 1863	Improvements in gas-burners and in gas furnaces.
GORE, THOMAS WILSON -	784	25th March 1863	An improved method of uniting earthenware, metal and other pipes.
GORGES, EDOUARD - - -	2049	24th Nov. 1863	Preservation of animal substances. (Patented by George Wagstaff Yapp.)
GORMAN, WILLIAM - - -	3057	5th Dec. 1863	Improvements in obtaining and applying heat and in apparatus therefor, being also in part applicable for lighting.
GORST, JOHN RICHARDSON -	656	9th March 1863	Carriages.
GOSSAGE, WILLIAM - - -	2259	14th Sept. 1863	Drying or curing certain vegetable productions.
GOSSIAUX, EDWARD - - -	1531	18th June 1863	An improved machine for making bolts, rivets and spikes.
GOUCHER, JOHN - - -	358	9th Feb. 1863	Regulating the admission of air into the furnaces of steam-boilers.
GOUCHER, JOHN - - -	966	17th April 1863	Improvements in steam-boilers and in regulating the admission of air into the furnaces of steam-boilers.
GROUNDY, JOHN WESLEY -	2490	10th Oct. 1863	Musical instruments.
GOUPIL, EDMOND ALFRED -	76	9th Jan. 1863	An improved locomotive apparatus.
GOUTY, CHARLES - - -	1918	4th Aug. 1863	Improvements in fulling, thickening, felting and cleansing cloths, and in apparatus connected therewith.
GOVERNON, JULES - - -	3177	16th Dec. 1863	Watches.
GOWER, ANDREW - - -	1672	6th July 1863	An improved sowing and harrowing machine.
GOWER, BENJAMIN SMYTH -	1672	6th July 1863	An improved sowing and harrowing machine.
GOWLAND, GEORGE - - -	1717	9th July 1863	Construction and arrangement of nautical and surveying instruments for measuring angles and altitudes.
GOWLAND, GEORGE - - -	1935	6th Aug. 1863	Mariners' compasses.
GRACE, THEODORE - - -	1001	22nd April 1863	Improvements in reaping and mowing machines, part of which improvement is applicable to other useful purposes.
GRÈME, PATRICK ST. GEORGE	2895	18th Nov. 1863	Ships or vessels for war and other purposes.
GRAHAM, GEORGE - - -	133	15th Jan. 1863	Apparatus to be used in turkey-red dyeing.
GRAHAM, GEORGE - - -	980	20th April 1863	Machinery for folding or plaiting fabrics.
GRAHAM, GEORGE - - -	1986	12th Aug. 1863	Improvements relating to baths or boilers used in dyeing.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GRAHAM, GEORGE FREDERICK	2452	7th Oct. 1863	High pressure cocks.
GRAHAM, JOHN - - -	980	20th April 1863	Machinery for folding or plaiting fabrics.
GRAHAM, JOHN - - -	1892	31st July 1863	Certain improvements in looms for weaving.
GRAHAM, JOHN MUNRO - -	1917	3rd Aug. 1863	Apparatus for producing optical illusions.
GRAHAM, WILLIAM - - -	980	20th April 1863	Machinery for folding or plaiting fabrics.
GRAHAM, WILLIAM - - -	1892	31st July 1863	Certain improvements in looms for weaving.
GRAHAM, WILLIAM - - -	2178	3rd Sept. 1863	Improvements applicable to paddle and other propelling wheels for navigable vessels.
GRANET, JEAN ARTHUR - -	1180	11th May 1863	A new wrought iron railway sleeper. (Patented by Charles Louis Van Tenac.)
GRANET, JEAN ARTHUR - -	1454	11th June 1863	An improvement in railway wooden sleepers. (Patented by Charles Louis Van Tenac.)
GRANT, JOHN - - - -	196	22nd Jan. 1863	Improvements in the construction of sidings and loop lines for railways or tramways whether portable or otherwise.
GRANT, THOMAS GEORGE -	785	23rd March 1863	Improvements in ovens and apparatus for heating the same.
GRANTHAM, JOHN - - -	391	13th Feb. 1863	Hydraulic presses.
GRANTHAM, JOHN - - -	801	27th March 1863	Apparatus connected with machinery used in manufacturing compressed fuel.
GRANTHAM, JOHN - - -	2030	15th Aug. 1863	Apparatus for manufacturing salt.
GRAS, LOUIS NAPOLEON LE -	2404	1st Oct. 1863	Cooking stoves and apparatus.
GRASON, THOMAS - - -	2651	27th Oct. 1863	Certain improvements in boots, shoes, clogs and such like coverings for the feet.
GRASSET, CLAUDE SOSTHÈNE -	2094	24th Aug. 1863	An improved double MacCarty gin or machinery used for cleaning cotton from its seeds.
GRASSET, LOUIS - - -	1688	7th July 1863	Improved apparatus for milking. (Patented by William Edward Gedge.)
GRATRIX, ROBERT HODGSON -	700	14th March 1863	Preparation of coloring matters for dyeing and printing. (Patented by William Boaler.)
GRAY, CARROLL EUGENE -	75	9th Jan. 1863	Wringing machines.
GRAY, CARROLL EUGENE -	146	16th Jan. 1863	Improvements in vessels in which to cool and transport fatty or oleaginous matters such as tallow, lard, palm oil and the like.
GRAY, JOHN - - - -	450	18th Feb. 1863	Improvements in the treatment of steatite and in its application to certain purposes.
GRAY, JOHN MCFARLANE -	1095	1st May 1863	Portable apparatus or instruments for riveting, caulking, chipping and otherwise operating upon and treating metals and other substances.
GRAY, SOLOMON SALLY -	3261	24th Dec. 1863	Paper or cloth lined paper collars for gentlemen and ladies.
GRAY, THOMAS - - - -	886	8th April 1863	Preparing and bleaching jute and other vegetable fibres for spinning and other purposes.
GRAY, THOMAS - - - -	945	15th April 1863	Improvements in preparing and bleaching flax, hemp and other vegetable fibres, by which a brilliant lustre is imparted to those substances and the fibres are separated.
GRAY, THOMAS - - - -	1403	5th June 1863	Treating flax, hemp and other vegetable fibrous substances in order to bleach and separate the fibres.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GRAY, THOMAS - - -	2950	24th Nov. 1863	The production of thread, cordage and woven textile fabrics, from prepared fibre of hemp or any of the plants known of the order or genus "Cannabis," and in mixing such prepared fibre with cotton, silk or animal wool.
GRAY, THOMAS - - -	2980	27th Nov. 1863	A new method of discharging color from rags used for paper making or other purposes, and in treating of vegetable fibres by such process.
GRAY, WILLIAM - - -	558	27th Feb. 1863	Manufacture of beaters for thrashing-machines.
GRAY, WILLIAM - - -	1984	11th Aug. 1863	Improvements in certain parts of reaping machines and in the working or application of the same.
GRAY, WILLIAM HENRY -	2902	19th Nov. 1863	Improvements in the construction of blast cylinders and also in the form and method of working the valves of the same.
GREAVES, HUGH - - -	1739	11th July 1863	Construction of railways and tramways.
GREEN, EDWIN JOHN - -	3224	21st Dec. 1863	A holder or suspender for holding cotton and other reels, spools or balls, parts of which are also applicable for other useful purposes.
GREEN, JOHN - - -	2330	21st Sept. 1863	Machinery for manufacturing moulded articles of india-rubber. (Patented by William Hutchinson.)
GREEN, JOHN - - -	3041	3rd Dec. 1863	Horse shoes.
GREEN, JOHN - - -	3050	4th Dec. 1863	Construction of harrows, cultivators and ploughs.
GREEN, JOHN - - -	3223	21st Dec. 1863	Construction of harrows, cultivators and ploughs.
GREEN, JOHN BARCHAM -	523	25th Feb. 1863	Manufacture of paper.
GREEN, RICHARD AUGUSTUS [WILLOUGHBY.	238	27th Jan. 1863	Light rowing boats usually termed wager boats.
GREEN, WILLIAM - - -	1354	29th May 1863	Means or method of producing black coloring matters or pigments.
GREENE, JOHN FOSTER - -	1288	22nd May 1863	Manufacture of waterproof fabrics. (Patented by William Edward Newton.)
GREENE, JOHN FOSTER - -	1289	22nd May 1863	Improved machinery for the manufacture of waterproof fabrics. (Patented by William Edward Newton.)
GREENER, WILLIAM WELLING- [TON.	2231	10th Sept. 1863	Breech-loading fire-arms.
GREENHALGH, DANIEL - -	1429	9th June 1863	Certain improvements in machinery or apparatus for preparing cotton and other fibrous substances.
GREENHALGH, DANIEL - -	3139	12th Dec. 1863	Certain improvements in machinery for carding cotton and other fibrous substances.
GREENWOOD, BARZILLAI -	710	17th March 1863	An "all England's cricketers' clasp."
GREENWOOD, BARZILLAI -	711	17th March 1863	An "album belt."
GREENWOOD, BENJAMIN - -	2647	26th Oct. 1863	Improvements in the manufacture of brushes used in machines employed for preparing and combing wool, cotton, silk and other fibrous substances.
GREENWOOD, GEORGE - -	808	27th March 1863	Rag machines.
GREENWOOD, PETER WILLIAM	2090	22nd Aug. 1863	Preparing and spinning wool and other similar fibres.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GREENWOOD, ROBERT BENJA- [MIN.	2010	14th Aug. 1863	Means of preventing accidents upon railways.
GREFFIER, JEAN FREDERIC -	1609	26th June 1863	Apparatus for aerating liquids. (Patented by William Clark.)
GREGG, ISAAC - - -	1692	8th July 1863	Brick machines. (Patented by George Haseltine.)
GREGG, ST. GEORGE - -	2050	24th Nov. 1863	The production of thread, cordage and woven textile fabrics, from prepared fibre of hemp or any of the plants known of the order or genus "Cannabis," and in mixing such prepared fibre with cotton, silk or animal wool.
GREGOR, PETER MC - -	1013	23rd April 1863	Machinery for spinning and doubling.
GREGORY, EBENEZER NOAH -	2249	12th Sept. 1863	An improved method of uniting belts and lengths of wire gauze and other metal cloth.
GREGORY, EBENEZER NOAH -	3088	8th Dec. 1863	Driving-bands and pulleys for transmitting motion.
GREGORY, JOHN - - -	2302	18th Sept. 1863	Constructing breech-loading ordnance. (Patented by William Smith.)
GREGORY, JOHN - - -	2303	18th Sept. 1863	Improvements in the construction and mode of working ordnance for ships and forts, and in the means of protecting those engaged in working guns employed for such purposes. (Patented by William Smith.)
GRETTON, FREDERICK - -	1083	29th April 1863	Heating the contents of mash tuns.
GREY, JAMES GRAHAM - -	1016	24th April 1863	Machinery for sewing and stitching.
GRICE, FREDERIC GROOM -	202	2nd Feb. 1863	Machinery for the manufacture of bolts, spikes, rivets and screw blanks.
GRIFFITH, RICHARD - - -	1725	10th July 1863	Construction of sewing-machines.
GRIFFITHS, JOHN - - -	1612	26th June 1863	Machinery for puddling iron and steel.
GRIFFITHS, ROBERT - - -	2080	21st Aug. 1863	Construction of retorts or ovens for extracting oil from certain descriptions of cannel coal or other bituminous substances.
GRIFFITHS, ROBERT - - -	2868	16th Nov. 1863	Propelling ships or other vessels.
GRIFFITHS, WILLIAM THOMAS	753	21st Mar. 1863	Improved means for ventilating mines.
GRIMES, GEORGE CHARLES -	59	7th Jan. 1863	Means or apparatus for treating splints used in the manufacture of matches and other lights.
GRIMES, GEORGE CHARLES -	3080	8th Dec. 1863	Improvements in the manufacture of fusees, vesuvians or other cigar or pipe lights, and in means or apparatus employed in the manufacture of cigar or pipe lights, lucifer matches and vestas.
GRIMSHAW, JOHN SMALLEY -	834	1st April 1863	Carding-engines.
GRIMSHAW, JOHN SMALLEY -	1152	8th May 1863	Looms for weaving.
GRISON, THEOPHILE - - -	1902	1st Aug. 1863	Dyeing mixed animal and vegetable fibres whether in a raw or manufactured state. (Patented by Richard Archibald Brooman.)
GRIVEL, ANTOINE - - -	347	7th Feb. 1863	Improvements in locks.
GROGAN, RODERICK - - -	66	8th Jan. 1863	New and improved propellers for vessels driven by steam or other power.
GROGAN, RODERICK - - -	1504	16th June 1863	Gravelling and macadamizing roads and paths.
GROGNET, CHARLES - - -	1400	5th June 1863	Jacquard machines. (Patented by Robert William Sievier.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GROGNET, CHARLES - -	2885	18th Nov. 1863	Jacquard machines. (Patented by Robert William Sievier.)
GROMARD, ARTHUR QUENTIN [DE.]	1401	5th June 1863	Musical instruments.
GROOTE, CHARES DE - -	755	21st March 1863	Improvements in the construction of lamps with circular burners or wicks, for the combustion of petroleum, schist and other volatile oils, parts of said improvements being applicable to gas-burners, night lights and lamps burning spirits and animal oils.
GROSSMITH, JOHN - - -	287	31st Jan. 1863	An improved mode of producing the aura-electric gas.
GROTE, FREDERICK WILLIAM	514	24th Feb. 1863	Sewing-machines. (Patented by William Clark.)
GROUCUTT, DAVID - - -	353	7th Feb. 1863	An improvement or improvements in the manufacture of iron for making nails.
GROVE, WILLIAM - - -	85	10th Jan. 1863	An improved apparatus applicable to the sawing and cutting of wood or other light substances.
GROVE, WILLIAM - - -	86	10th Jan. 1863	Apparatus for sawing wood and other substances.
GRON, FRANÇOIS JACQUES -	337	6th Feb. 1863	Improvements in carding-engines whereby slivers are formed into threads ready for spinning. (Patented by Richard Archibald Brooman.)
GUELDRY, VICTOR - - -	687	13th March 1863	Fastenings suitable for portions of harness and other purposes. (Patented by John Henry Johnson.)
GUERRIERO, ALEXANDRE -	628	5th March 1863	Fire-arms. (Patented by William Clark.)
GUESNÉ, JULES FRANÇOIS -	2394	30th Sept. 1863	Musical instruments. (Patented by William Clark.)
GUICHARD, LOUIS JOSEPH -	1682	7th July 1863	Improvements in lamps and in the wicks used in such lamps.
GUILD, ALEXANDER - - -	68	8th Jan. 1863	Improved machinery for breaking and cleaning flax, hemp and other fibre yielding plants. (Communicated by Gelston Sandford and James Edward Mallory.)
GUILLAUME, ETIENNE - -	1836	22nd July 1863	Improvements in making all woven and thready fabrics waterproof, and in finishing or surfacing fabrics generally. (Patented by Charles Beslay.)
GUILLAUME, SAMUEL ST. [BARBE.]	1398	5th June 1863	Improvements in bricks and in apparatus to be used in manufacturing the same, and in brickwork built therewith.
GUILLEMIN, LOUIS - - -	1989	12th Aug. 1863	An improved mode and apparatus for dressing and finishing, and for imparting lustre to yarn and thread made of silk, cotton and other fibrous substances. (Patented by Louis Rudolph Bodmer.)
GUILLEMOT, LOUIS - - -	2093	24th Aug. 1863	An improved machine for obtaining perpetual motion.
GUILMETTE, JAMES WILLIAM	2433	5th Oct. 1863	An improved substitute for whiting, pipe clay and other analogous substances, to be employed to produce a white coating or surface.

Gui]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Had

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
GUIOD, ALEXIS - - -	2819	12th Nov. 1863	Improved process and apparatus for amalgamating the precious metals. (Patented by William Edward Gedge.)
GUIRETTE, JOSEPH SEVERIN -	1184	11th May 1863	An improved inhaling apparatus.
GUIRETTE, JOSEPH SEVERIN -	2757	6th Nov. 1863	An improved inhaling apparatus.
GÜNTHER, WILLIAM - - -	2429	5th Oct. 1863	Rotary engines worked by steam, water or other motive-power.
GÜNTHER, WILLIAM - - -	2430	5th Oct. 1863	Motive engines worked by water, steam or other motive-power. (Partly communicated by Albert Westfield.)
GUTHRIE, EDWIN - - -	3086	8th Dec. 1863	An improved stamp for marking post letters and other articles requiring to be stamped or marked in a like manner. (Patented by Malcom Guthrie.)
GUTHRIE, MALCOM - - -	3086	8th Dec. 1863	An improved stamp for marking post letters and other articles requiring to be stamped or marked in a like manner. (Partly communicated by Edwin Guthrie.)
GUTTERIDGE, MATTHEW -	1176	9th May 1863	Agricultural implements.
GUTTERIDGE, MATTHEW -	2785	9th Nov. 1863	Haymaking machines.
GWYNNE, WILLIAM HENRY -	3029	2nd Dec. 1863	Improvements in the process and manner of making gas for illuminating, heating and other purposes, a part of which may also be applied to the production of metallic oxydes. (Patented by Henry Holdrege.)

H.

HABEL, EDWARD - - -	582	2nd March 1863	Certain improvements in machinery or apparatus for preparing, spinning and doubling cotton and other fibrous substances.
HABERSHON, JOHN MATTHEW	1285	22nd May 1863	Machinery for rolling, polishing, straightening and tapering round rods or bars of iron, steel and other metals.
HABERSHON, JOSEPH JONES -	1285	22nd May 1863	Machinery for rolling, polishing, straightening and tapering round rods or bars of iron, steel and other metals.
HABERSHON, MATTHEW HENRY	1285	22nd May 1863	Machinery for rolling, polishing, straightening and tapering round rods or bars of iron, steel and other metals.
HABICHT, JOHN CONRAD -	2788	10th Nov. 1863	Certain improvements in keyless watches. (Communicated by Messieurs Frederic Parrot and Charles Martin.)
HACKFORTH, MATTHEW -	351	7th Feb. 1863	Shades or reflectors for lighting purposes.
HADDAN, JOHN COOPE - -	1894	31st July 1863	Improvements in fire-arms and in artillery and projectiles for the same.
HADDON, JOHN - - -	3118	11th Dec. 1863	Machinery for the manufacture of nails and rivets.

[Had]

ALPHABETICAL INDEX OF PATENTEES

[Ham

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HADFIELD, CHARLES - -	2318	19th Sept. 1863	Machinery or apparatus for making bricks, tiles or slabs and other such articles.
HADFIELD, WILLIAM - -	564	28th Feb. 1863	Improvements in steam-boilers and in the arrangement of flues in connection therewith.
HAFFNER, CHRETIEN - -	2101	25th Aug. 1863	Machinery or apparatus to be used in the manufacture of candles. (Patented by William Edward Gedge.)
HAIGH, HENRY - - -	2388	29th Sept. 1863	Dyeing cotton or other vegetable fibrous substances.
HAIGH, WILLIAM BLACKETT -	1979	11th Aug. 1863	An improved equilibrium saw frame.
HAINES, CAMPBELL LLOYD -	128	15th Jan. 1863	Machinery for the manufacture of taper metallic tubes.
HAINSWORTH, WM. - -	179	21st Jan. 1863	Improvements in the manufacture of cast iron pipes and the apparatus employed for that purpose. (Patented by Thomas Wright.)
HAINSWORTH, WILLIAM -	465	20th Feb. 1863	Manufacture of cast iron pipes, columns or any description of tubing.
HALEY, ABRAHAM - - -	1321	26th May 1863	Jacquard looms.
HALEY, ALFRED WILLIAM -	3027	2nd Dec. 1863	Machinery or apparatus for making envelopes and other similar purposes.
HALL, DAVID ELDON - -	747	20th March 1863	Lamps and lamp wicks. (Patented by Vasconcellos Houghton.)
HALL, DAVID ELDON - -	2305	18th Sept. 1863	Lamps and lamp wicks. (Patented by Vasconcellos Houghton.)
HALL, GEORGE - - -	1082	28th April 1863	A new explosive compound applicable for all the purposes for which gunpowder is or may be used.
HALL, LYMAN - - -	2373	26th Sept. 1863	Manufacture of india-rubber and gutta-percha compounds. (Patented by Lucius Henry Norris.)
HALL, NATHANIEL RICHARD -	791	26th March 1863	Construction of weighing apparatus.
HALL, THOMAS - - -	3274	28th Dec. 1863	Improvements applicable to steam-boilers for economising fuel.
HALLET, JOHN FORD - -	3064	7th Dec. 1863	An improved apparatus for checking cash taking at intervals.
HALLETT, EDWIN OWEN -	1460	11th June 1863	Improvements in constructing the sides of ships, batteries and fortifications, and in applying armour plates thereto.
HALLIWELL, JAMES - -	3191	18th Dec. 1863	Atmospheric railways.
HALLIWELL, ROBERT - -	1976	11th Aug. 1863	Certain improvements in machinery for preparing, spinning and doubling cotton and other fibrous substances.
HALLSWORTH, SAMUEL - -	2067	20th Aug. 1863.	Manufacture of certain colouring matters known as Prussian blue, Berlin blue, Paris blue, China blue, and Turnbull's blue.
HAMELLE, EDOUARD - -	657	9th March 1863	Construction or laying of wooden floors. (Patented by William Edward Newton.)
HAMER, HENRY - - -	832	31st March 1863	Improvements in tanning and in apparatus employed therein.
HAMILTON, FRANCIS - -	1293	23rd May 1863	Lap machines for preparing cotton and other fibrous substances.
HAMILTON, FRANCIS - -	1430	9th June 1863	Certain improvements in machinery for grinding card teeth.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HAMILTON, FRANCIS - - -	3139	12th Dec. 1863	Certain improvements in machinery for carding cotton and other fibrous substances.
HAMILTON, WILLIAM - - -	612	4th March 1863	Means or apparatus for registering suitable for advertisers' purposes.
HAMILTON, WILLIAM - - -	2069	20th Aug. 1863	Manufacture of spring mattresses.
HAMMOND, CHARLES DANIEL	2073	20th Aug. 1863	Apparatus for the treatment of certain bodily ailments.
HAMON, AUGUSTIN HENRI -	1541	19th June 1863	Manufacture of leaden pipes. (Patented by William Edward Newton.)
HAMPER, DOUGLAS WILLIAM	2939	21st Nov. 1863	Apparatus for mashing malt for brewing or distilling.
HAMPSON, JONATHAN ROBERT	2148	31st Aug. 1863	Certain improvements in means to be employed for securing the ends of bands in packing "bale goods," and in machinery for manufacturing "rivets" to be employed for the purpose, and also in apparatus for forming apertures in the aforesaid bands or hoops.
HAMPSON, WILLIAM, the younger	2540	17th Oct. 1863	Certain improvements in looms for weaving.
HANCOCK, HENRY - - -	762	23rd March 1863	A new combined range for making gas, cooking by gas, and lighting, especially applicable for ships.
HANCOCK, HENRY - - -	2742	5th Nov. 1863	A new system of fastening for doors, windows, safes, chests and other similar purposes.
HANCOCK, JOHN - - -	1931	5th Aug. 1863	Electro-motive engines.
HANCOCK, THOMAS - - -	640	6th March 1863	An improved receptacle for gold and silver or other coins.
HANNART, LOUIS JOSEPH -	2631	24th Oct. 1863	An improved clasp or fastening for gloves or other wearing-apparel, for, umbrellas, travelling bags or other similar objects.
HANREZ, PROSPER - - -	857	4th April 1862	Machinery or apparatus for drying coal, grain and other substances.
HANSEL, CHARLES - - -	2342	23rd Sept. 1863	Certain improvements in centrifugal machines for treating saccharine substances, part of the same being applicable to other centrifugal machines. (Patented by Peter Armand Lecomte De Fontainemoreau.)
HARBEN, HENRY - - -	64	7th Jan. 1863	Manufacture of fibrous material for cleansing machinery and other purposes.
HARDING, GEORGE ROGERS -	1269	21st May 1863	Improvements in the means of transmitting power on railways worked by vacuum or the pressure of air, and in the apparatus to be employed for such purpose.
HARDING, THOMAS RICHARDS	492	23rd Feb. 1863	Machinery for carding and combing flax, wool, cotton and other fibrous substances.
HARE, CHARLES - - -	1316	25th May 1863	Reclining and easy chairs.
HARGRAVES, EDWIN - - -	2846	14th Nov. 1863	Preventing the escape of heat from steam-boilers and other heated surfaces.
HARGRAVES, EDWIN - - -	3259	24th Dec. 1863	Treating printed and dyed fabrics.
HARGREAVES, BENJAMIN -	1177	11th May 1863	Tiles for drainage or sanitary purposes.
HARGREAVES, GEORGE - - -	2188	5th Sept. 1863	Steam-boilers.
HARGREAVES, JAMES - - -	1810	20th July 1863	Machinery or apparatus for sizing and drying yarns and fabrics.
HARLING, DANIEL - - -	965	17th April 1863	Certain improvements in looms for weaving.

[Har]

ALPHABETICAL INDEX OF PATENTEES

[Har]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HARLOW, EDMUND - -	2380	28th Sept. 1863	Breech-loading fire-arms.
HARLOW, JOHN TERTIUS - -	2380	28th Sept. 1863	Breech-loading fire-arms.
HARPER, JAMES HOLMES - -	1071	28th April 1863	An improved machine for agitating and mixing substances. (Patented by George Davies.)
HARPER, JOHN - - -	3031	2nd Dec. 1863	Pillars and apparatus for straining wire.
HARRATT, CHARLES - - -	2129	28th Aug. 1863	Apparatus for tilling land.
HARRINGTON, ROBERT - - -	2275	16th Sept. 1863	Improvements in umbrellas and parasols, and in parts thereof.
HARRIS, FREDERICK WARREN	1437	9th June 1863	Propulsion of ships and other vessels. (Patented by William Edward Newton.)
HARRIS, ISAAC BLUE - - -	1495	15th June 1863	Manufacture of flexible and other tubes.
HARRIS, JOHN - - -	681	13th March 1863	Machinery for rolling armour plates, bridge plates, boat plates and other plates and bars of iron.
HARRIS, JOHN REEVES - - -	887	8th April 1863	Propelling vessels.
HARRISON, CHARLES WEIGHT- [MAN.]	2874	16th Nov. 1863	Filters.
HARRISON, CORNELIUS - - -	1211	14th May 1863	Improvements in nails or rivets for boots and shoes, applicable to other purposes.
HARRISON, GEORGE - - -	2795	10th Nov. 1863	Apparatus for grinding cards used in carding-engines.
HARRISON, JAMES - - -	1677	6th July 1863	Apparatus for supplying carbonic acid gas to casks or other vessels containing beer or other fermented liquid. (Patented by Samuel John Cooke.)
HARRISON, JAMES - - -	2857	14th Nov. 1863	Mills for cleaning cotton seed.
HARRISON, SAMUEL - - -	1030	25th April 1863	A new and improved mode of manufacturing type for letter press printing.
HARRISON, THOMAS - - -	2837	13th Nov. 1863	Improvements in machinery for cutting and excavating coal and other minerals, applicable also to other mining purposes.
HARRISON, THOMAS - - -	3084	2nd Dec. 1863	Machinery for cutting coal and other minerals and stones.
HARRISON, THOMAS - - -	3093	8th Dec. 1863	Machinery for puddling iron and steel.
HARRISON, THOMAS MADDOCKS	1450	11th June 1863	An improvement or improvements in the manufacture of metallic casks.
HARRISON, WILLIAM - - -	194	22nd Jan. 1863	Certain improvements in looms for weaving.
HARRISON, WILLIAM HENRY -	163	19th Jan. 1863	Improvements in covering wire and other iron articles, for the purpose of protecting them from oxidation, and in the mode or method employed therein.
HARROP, JOHN - - -	132	15th Jan. 1863	Improvements in the treatment of organic fecal and urinous matters for the purpose of deodorizing the same, and in the preparation of a portable manure therefrom, and in the treatment of ashes or other refuse of combustion to be combined therewith, also for improvements in machinery to be employed in the manufacture of the said manure.
HARROWBY, ALFRED - - -	3090	8th Dec. 1863	Looms for weaving.
HARROWBY, ROBERT - - -	3090	8th Dec. 1863	Looms for weaving.

[Har]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Has]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HART, ABRAHAM - - -	2572	20th Oct. 1863	Improvements in forming stitches over the edges of fabrics and in machinery connected therewith. (Patented by George Davies.)
HART, HERBERT WILLIAM -	2299	18th Sept. 1863	An improvement in T fastenings.
HART, HERBERT WILLIAM -	2528	15th Oct. 1863	Apparatus for suspending T and other like fastenings and articles to which they are applied.
HARTCLIFFE, WILLIAM - -	2578	21st Oct. 1863	Certain improvements in mules for spinning and doubling.
HARTLEY, EDMUND - - -	757	21st March 1863	Looms for weaving.
HARTLEY, JOHN GALLEY -	2495	12th Oct. 1863	Construction of iron and wooden ships and other vessels.
HARTON, GEORGE - - -	309	4th Feb. 1863	Wood paving.
HARTSHORN, ISAAC - - -	446	18th Feb. 1863	Breech-loading fire-arms. (Patented by George Tomlinson Bousfield.)
HARTSHORN, JAMES - - -	2236	11th Sept. 1863	Improvements in the manufacture of lace and in means or apparatus employed therein.
HARVEY, JAMES SAMUEL -	1640	1st July 1863	Machinery for cutting tobacco into cakes suitable for the press.
HARVEY, JOHN - - -	1640	1st July 1863	Machinery for cutting tobacco into cakes suitable for the press.
HASELTINE, GEORGE - - -	313	4th Feb. 1863	Mode of uniting metallic surfaces. (Communicated by William Brainerd Barnard.)
HASELTINE, GEORGE - - -	397	14th Feb. 1863	Improvements in lever horse power machines, the cog-gearing employed being applicable to other machines. (Communicated by Cyrus Avery.)
HASELTINE, GEORGE - - -	576	28th Feb. 1863	Sewing-machines. (Communicated by Lebbeus Wisner Lathrop.)
HASELTINE, GEORGE - - -	734	19th March 1863	Manufacture of boots and shoes. (Communicated by Henry Port.)
HASELTINE, GEORGE - - -	1113	4th May 1863	Springs for railway carriages and other purposes. (Communicated by Richard Vose.)
HASELTINE, GEORGE - - -	1546	20th June 1863	An improved oil more especially designed for mixing paints and colors, and new mode of manufacturing the same. (Communicated by Adolph Millockau.)
HASELTINE, GEORGE - - -	1692	8th July 1863	Brick machines. (Communicated by Isaac Gregg.)
HASELTINE, GEORGE - - -	1701	8th July 1863	Lever horse power machines, the cog-gearing employed being applicable to other machines. (Communicated by Cyrus Avery.)
HASELTINE, GEORGE - - -	1827	21st July 1863	An improved implement for harrowing and smoothing land. (Communicated by John Kelsey.)
HASELTINE, GEORGE - - -	1865	27th July 1863	Coal oil lamps. (Communicated by Michael Boyd Dyott.)
HASELTINE, GEORGE - - -	2585	21st Oct. 1863	Balances or weighing machines. (Communicated by Major General William Rosecrans and Doctor Anson Platt.)

[Has]

ALPHABETICAL INDEX OF PATENTEES

[Hay]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HASELTINE, GEORGE - -	2627	24th Oct. 1863	A new attachment to coverings for the head and to other articles of dress, for lighting matches. (Communicated by Justus Osman Woods.)
HASELTINE, GEORGE - -	2779	7th Nov. 1863	An improved machine for bending metallic pipes or spouts. (Communicated by Elijah Valentine and Moses Thompson Ridout.)
HASELTINE, GEORGE - -	2809	11th Nov. 1863	Endless chain horse powers. (Communicated by Stuart Perry.)
HASELTINE, GEORGE - -	3207	19th Dec. 1863	An improved oil more especially designed for mixing paints and colors, and a new mode of manufacturing the same. (Communicated by Adolph Millochau.)
HATSCHEK, MORITZ - -	1448	11th June 1863	An improved method of mashing.
HAUGHTON, HENRY OSBURN	737	19th March 1863	Machinery for drying and cooling grain and seeds. (Communicated by Jesse Brown Wheeler and Simeon Losee.)
HAWKSLEY, GEORGE - -	581	2nd March 1863	Powder chargers.
HAWKSWORTH, WILLIAM [HIGGS.]	2215	9th Sept. 1863	Certain improvements in apparatus for preparing cotton and other fibrous materials for spinning.
HAWORTH, JOHN - - -	650	9th March 1863	Breaks for omnibuses and other carriages.
HAWORTH, JOHN - - -	2333	22nd Sept. 1863	Machinery for stretching woven fabrics.
HAWORTH, JOHN - - -	2682	30th Oct. 1863	Improved method of conveying electric signals and telegrams without the intervention of any continuous artificial conductor.
HAWORTH, JOHN - - -	3304	31st Dec. 1863	Certain improvements in looms for weaving.
HAWTHORN, JOHN - - -	500	24th Feb. 1863	Certain improvements in handles for doors, drawers and other means of enclosure.
HAWTHORN, ROBERT - -	1731	10th July 1863	Working of railways.
HAWTHORN, WILLIAM - -	1731	10th July 1863	Working of railways.
HAY, ANDREW KESLER - -	2022	15th Aug. 1863	Furnaces for heating, flattening and annealing glass. (Patented by George Davies.)
HAYCRAFT, GEORGE - -	154	17th Jan. 1863	Powder flasks.
HAYES, EDWARD - - -	574	28th Feb. 1863	Improvements in supplying water to surface condensers of marine engines.
HAYES, PATRICK - - -	716	17th March 1863	An improved preparation for the cure of scab, foot rot and other diseases of sheep and cattle. (Patented by William Edward Newton.)
HAYES, WILLIAM HENRY -	1282	22nd May 1863	Butt hinges. (Patented by William Snell.)
HAYS, JOSEPH JUDGE - -	315	4th Feb. 1863	An improved hot air stove where peat charcoal is the fuel employed, and for the method of using peat charcoal or other suitable fuel in connection with the said stove or other stoves, for the purpose of purifying or filtering the gaseous products of combustion.
HAYS, JOSEPH JUDGE - -	2919	20th Nov. 1863	Hot air stoves.
HAYWARD, DANIEL - - -	448	18th Feb. 1863	Improvements in the manufacture of boots and shoes, and in preparing india-rubber for such and other uses. (Patented by George Tomlinson Bougfield.)

Name of Patentee,	Number of Patent.	Date.	Subject-matter of Patent.
HAYWARD, RICHARD - -	1317	25th May 1863	Apparatus for bottling liquids or for drawing or letting off at the same time, liquids from several different casks or vessels.
HAYWARD, ROBERT - -	1589	24th June 1863	Machinery for plaiting and measuring woven fabrics.
HAYWOOD, JOHN HARRINGTON	422	16th Feb. 1863	Packing bonnet fronts, rouches and other similar articles.
HAZELDINE, FREDERICK -	3237	22nd Dec. 1863	Hydraulic pumps.
HEAD, JOHN - - - -	1807	25th June 1863	Improvements in machinery applicable to thrashing machines and for cutting and bruising straw.
HEALD, ALFRED - - -	1528	18th June 1863	Improvements in sewing-machines, which said improvements are also applicable to other useful purposes.
HEALEY, SAMUEL - - -	771	24th March 1863	Improvements in the manufacture of zinc and in the apparatus employed therein.
HEALEY, SAMUEL JAMES -	2640	26th Oct. 1863	Water gauges applicable to steam-boilers and other purposes.
HEAP, JOHN - - - -	2496	12th Oct. 1863	Perforating machines.
HEAP, JOSHUA - - - -	987	21st April 1863	Adjustable wrenches for nuts, pipes and pins.
HEAP, ROBERT - - - -	2755	6th Nov. 1863	Improvements in self-acting machinery or apparatus, worked by steam or other power, for cutting and shaping the soles and heels of boots and shoes and screwing them on to the uppers or coverings, and also in vices for holding the same, and tools for paring, blacking and glazing or otherwise ornamenting the edges of the soles and heels.
HEARD, JOHN - - - -	1359	30th May 1863	Apparatus for distributing manure
HEATH, THOMAS THEODORE -	894	9th April 1863	The application of glass for ceilings and the like overhead parts of houses and other structures.
HEATHER, ALFRED - - -	1243	18th May 1863	Construction of steam-boilers for marine, locomotive and stationary engines.
HEATLEY, ROBERT - - -	444	18th Feb. 1863	Certain improvements in looms for weaving.
HEATON, RICHARD - - -	2388	29th Sept. 1863	Dyeing cotton or other vegetable fibrous substances.
HEBBLEWHITE, BENJAMIN -	1244	18th May 1863	Machinery or mills for crushing or reducing oil cake, seeds and other substances. (Communicated by Samuel Hebblewhite.)
HEBBLEWHITE, SAMUEL -	1244	18th May 1863	Machinery or mills for crushing or reducing oil cake, seeds and other substances. (Patented by Benjamin Hebblewhite.)
HEBERT, LOUIS - - - -	796	26th March 1863	Improvements in furnaces or fire-places and in apparatus to be used in connection therewith. (Patented by John Henry Johnson.)
HECTOR, ALEXANDER - - -	1871	28th July 1863	Means or apparatus for facilitating the catching of fish.
HEES, RICHARD EDWARD VAN	3244	23rd Dec. 1863	Certain improvements in means to be employed for securing the ends of bands in packing "bale goods," and in machinery for manufacturing "holdfasts" to be employed for the purpose.
HEINTZMANN, ALEXIS - - -	332	6th Feb. 1863	An improved boring bench for gun barrels. (Communicated by Charles Berger.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HELSBY, WILLIAM GEORGE -	2354	24th Sept. 1863	Mounting or setting transparent photographic pictures.
HELSON, MICHEL - - -	1091	30th April 1863	Improvements in welding and rolling metals and in machinery connected therewith. (Patented by Edward Griffith Brewer.)
HEMFREY, HENRY - - -	1910	1st Aug. 1863	Apparatus for elevating straw and other agricultural produce.
HENDERSON, ALEXANDER -	207	23rd Jan. 1863	Improvements in the preparation or manufacture of textile materials and in the machinery or apparatus used therein.
HENDERSON, JOHN - - -	593	3rd March 1863	Machinery or apparatus for the manufacture of carpets and other piled fabrics.
HENDERSON, JOHN - - -	2003	13th Aug. 1863	Preparing yarns for printing.
HENDERSON, WILLIAM - -	1728	10th July 1863	Improvements in treating ores and other substances containing iron, in the manufacture of iron, steel and alloys of iron, and of a purifying and deoxidizing agent therefrom, also in the construction of retorts or kilns for treating the said ores and substances.
HENDRY, JOHN - - -	2185	4th Sept. 1863	Furnaces.
HENNESSY, HENRY - - -	2567	20th Oct. 1863	An improvement in projectiles.
HENRY, ANDREW POLLOCK -	2869	16th Nov. 1863	An improved method or apparatus for affixing labels on bottles, canisters and other like articles.
HENRY, MICHAEL - - -	84	9th Jan. 1863	Furnaces. (Communicated by Hyppolite Godard-Desmarest.)
HENRY, MICHAEL - - -	172	20th Jan. 1863	Apparatus for retarding and stopping railway carriages. (Communicated by Charles Fray, Vincent Paul Amédée Varenne, Louis Casimir Descouleur and Sabin Joseph Cazier.)
HENRY, MICHAEL - - -	838	1st April 1863	An improved method of lubricating. (Communicated by Edwin P. Quadling.)
HENRY, MICHAEL - - -	868	6th April 1863	Probes, catheters and similar surgical instruments. (Communicated by Bernard Saurel.)
HENRY, MICHAEL - - -	1086	29th April 1863	Improvements in apparatus for manufacturing beton and artificial stone, pugging clay and other similar purposes, and in the production of artificial stone, and artistic, ornamental and decorative articles, works and surfaces. (Communicated by François Coignet.)
HENRY, MICHAEL - - -	1324	26th May 1863	Apparatus for raising, forcing and moving fluids. (Communicated by Louis Coignard.)
HENRY, MICHAEL - - -	1451	11th June 1863	Improvements in treating floss silk and silk waste, and in apparatus for the same and other like purposes. (Communicated by Charles Torne.)
HENRY, MICHAEL - - -	1542	19th June 1863	Improvements in decorticating grain and seeds, and in the application of the products obtained by and material used in decorticating. (Communicated by Jules Lemoine and Louis Joseph Maximilien Chillet.)

[Hen]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Hey]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HENRY, MICHAEL - -	1773	15th July 1863	Figuring, ornamenting and colouring fulled and felted fabrics and articles. (Communicated by the Société Troty, Latouche, frères.)
HENRY, MICHAEL - - -	2669	28th Oct. 1863	An improvement in or addition to military knapsacks, travelling bags and other similar articles. (Communicated by Antoine Perrin, Henry Augustin Joseph Hovelacque, Edouard Joseph Hovelacque and Emile Auguste Hovelacque.)
HENRY, MICHAEL - - -	2721	3rd Nov. 1863	Manufacture of zinc white. (Communicated by Alphonse Pallu.)
HENRY, MICHAEL - - -	3096	8th Dec. 1863	Apparatus for regulating the passage of aeriform and other fluids. (Communicated by Charles Joseph Louis Meynard.)
HENRY, MICHAEL - - -	3226	21st Dec. 1863	Mode of and apparatus for controlling the passage of fluids to and from casks and other vessels. (Communicated by the Société Hermann Lachapelle et Glover.)
HENRY, MICHAEL - - -	3228	21st Dec. 1863	Mode of and apparatus for constructing houses and other structures of plastic materials. (Communicated by Alphonse Pallu.)
HENSON, HENRY HENSON -	232	27th Jan. 1863	Improvements in fabrics for covering floors, walls, roofs and other surfaces or objects, which fabrics are also partly applicable to the manufacture of waterproof articles.
HENSON, HENRY HENSON -	527	25th Feb. 1863	Mats.
HENSON, JAMES - - -	1363	1st June 1863	Construction of railway carriages.
HERNANDEZ, ANTOINE PASCAL	1328	27th May 1863	Manufacture of soap.
HESFORD, JAMES - -	1306	25th May 1863	Machinery and apparatus for stretching and drying cotton and other fabrics or materials.
HESS, EDMUND - - -	1784	16th July 1863	The manufacture of a new product from peat and peat tar. (Patented by Louis Rudolph Bodmer.)
HETHERINGTON, JOHN MUIR	758	21st March 1863	Machinery or apparatus for combing cotton and other fibrous materials.
HETT, ALEXANDER - -	897	9th April 1863	Improvements in preventing the fouling of ships' bottoms and in cleansing the same when fouled.
HETT, ALEXANDER - -	2099	25th Aug. 1863	Preserving meat and other substances used for food.
HEUSNER, CARL LUDWIG -	1205	13th May 1863	Improvements in the manufacture of hydrate of barytes and in the manufacture of sugar.
HEWITT, JOSHUA - - -	2801	11th Nov. 1863	Apparatus for regulating and controlling the supply of water to water-closets and other purposes.
HEWITT, WILLIAM - -	2210	8th Sept. 1863	An improved rudder and means of working the same.
HEYNE, BERNARD, the younger	1969	10th Aug. 1863	Improved apparatus to facilitate sketching and drawing landscapes, buildings, machinery and other objects, in correct perspective.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HEYWOOD, HARVEY - -	493	23rd Feb. 1863	Ornamenting plush and other such textile fabrics.
HEYWOOD, HARVEY - -	2609	22nd Oct. 1863	Dyeing threads of silk.
HIATT, JOSIAH - - -	234	27th Jan. 1863	Fastenings of umbrellas and parasols.
HIBBERT, SAMUEL - -	1130	6th May 1863	Certain improvements in apparatus for cleansing potatoes, and in decorticating the same and other esculent roots.
HICKLIN, WILLIAM - -	1540	19th June 1863	Improvements in metal screens and sieves for screening and sifting, applicable also to other openwork articles.
HICKS, LUCIEN EZRA - -	1622	29th June 1863	Inkstands.
HIGGINS, HENRY - - -	410	14th Feb. 1863	Improvements in carding-engines and in apparatus connected therewith.
HIGGINS, JAMES - - -	410	14th Feb. 1863	Improvements in carding-engines and in apparatus connected therewith.
HIGGINS, JAMES - - -	1290	22nd May 1863	Machinery or apparatus for roving, spinning, and doubling cotton and other fibrous materials.
HIGHT, WILLIAM HENRY -	1245	18th May 1863	Envelope folding machines.
HIGNETT, WILLIAM - -	1493	15th June 1863	Construction of rocking horses, and giving additional motion thereto. (Patented by Thomas Cope.)
HILL, GEORGE - - -	882	8th April 1863	Steam-boilers.
HILL, JAMES FRANCE - -	2074	21st Aug. 1863	An improved ventilating gas lamp or gasalier.
HILL, THOMAS - - -	362	10th Feb. 1863	Arrangements employed for the protection of markers at rifle butts.
HILL, THOMAS - - -	1932	5th Aug. 1863	Evaporating and cooling.
HILL, THOMAS - - -	2575	20th Oct. 1863	Improvements in evaporating, cooling and melting, and in apparatus employed therein.
HILL, WILLIAM RIDINGS -	882	8th April 1863	Steam-boilers.
HILLARY, MARK - - -	3109	9th Dec. 1863	Fastenings for doors.
HILLIAR, JOHN - - -	1315	25th May 1863	Improvements in the construction of the frames, sashes, shutters, blinds and ventilators for windows or other openings, part of which improvements are also applicable to other constructive purposes.
HILLS, GEORGE - - -	1428	9th June 1863	Obtaining certain products from hops.
HILTON, SAMUEL - - -	2034	15th Aug. 1862	Manufacture of cement. (Patented by George Tomlinson Bougfield.)
HIM, PIERRE FRANÇOIS LOUIS [BIENVAUX.]	2020	15th Aug. 1863	A waterproof preparation to make fabrics, thread, textile matters and others impenetrable against water.
HINDLE, JAMES - - -	835	1st April 1863	Looms for weaving.
HINDLE, JAMES - - -	3175	16th Dec. 1863	Looms for weaving.
HINKS, JAMES - - -	1026	24th April 1863	Manufacture of buttons.
HINKS, JAMES - - -	1230	16th May 1863	Lamps.
HINTON, JOSEPH - - -	2580	21st Oct. 1863	An improvement or improvements in breech-loading fire-arms.
HIRST, JOSEPH - - -	1153	8th May 1863	Machinery for feeding slivers of wool and other material to carding-engines.
HIRZEL, HEINRICH - -	2894	18th Nov. 1863	Manufacture of coloring matters suitable for dyeing and printing.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HIRZEL, HEINRICH - -	2987	27th Nov. 1863	Improvements in extracting essences and perfumes and also oils and fats from matters containing them, also in bleaching and purifying oils and fats, and in apparatus employed therein.
HOARE, CHARLES - - -	1886	30th July 1863	Machinery for the manufacture of yarns, threads, laid twine and other cordage.
HOBACH, HERMAN - - -	1415	8th June 1863	Mounting and fitting bedsteads, chairs and other moveable seats on board ship. (Patented by William Clark.)
HODGART, JOHN - - -	47	6th Jan. 1863	Presses for pressing cotton and other substances. (Patented by Matthew Hodgart.)
HODGART, MATTHEW - -	47	6th Jan. 1863	Presses for pressing cotton and other substances. (Communicated by John Hodgart.)
HODGE, OLIVER HICKS - -	394	13th Feb. 1863	Improvements in hat brims, in the manufacture of hat brims, and in the apparatus or machinery used in such manufacture.
HODGE, PAUL RAPSEY - -	1591	24th June 1863	Improved fleeting hydrostatic machinery adapted to presses, dry docks, slips or the moving or lifting of heavy masses, parts of which are applicable to the expressing of oil or other fluids.
HODGKINSON, JOHN - - -	3139	12th Dec. 1863	Certain improvements in machinery for carding cotton and other fibrous substances.
HODGSKIN, JAMES - - -	824	31st March 1863	An improved composition for rendering cloth, paper and similar articles transparent and waterproof. (Patented by Edward Thomas Hughes.)
HODGSON, WILLIAM PRODER -	1939	6th Aug. 1863	Machinery for the manufacture of rivets.
HODSON, HARRY FARNCOMBE	2831	13th Nov. 1863	Certain improvements in cigars.
HODSON, THOMAS - - -	2584	21st Oct. 1863	Machinery for carding cotton and other fibrous materials.
HODSON, WILLIAM - - -	1933	5th Aug. 1863	Machinery used for propelling carriages and vessels.
HODSON, WILLIAM BENJAMIN	2911	19th Nov. 1863	Improvements in the manufacture of metal drums and cans for holding oils and other fluid matters, and in furnaces used in such manufacture.
HOE, RICHARD - - -	1890	30th July 1863	Fastenings for packing-cases.
HOE, RICHARD MARCH - -	529	25th Feb. 1863	Producing stereotype plates for printing purposes. (Patented by William Edward Newton.)
HOEFLER, JOHN - - -	1905	1st Aug. 1863	Certain improvements in the method of preparing and treating "Codilla fibre" and "tow," to render them available as a substitute for cotton or to be mixed therewith.
HOEHL, WILLIAM - - -	2429	5th Oct. 1863	Rotary engines worked by steam, water or other motive-power.
HOEHL, WILLIAM - - -	2430	5th Oct. 1863	Motive engines worked by water, steam or other motive-power. (Partly communicated by Albert Westfield.)
HORY, WILLIAM - - -	1298	23rd May 1863	The preparation of a fluid for renewing the surface of japanned and enamelled leathers and cloths.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOF, WILHELM - - -	2004	13th Aug. 1863	Construction of numbering machines. (Patented by Marc Antoine François Mennons.)
HOFFMAN, JOHN WILLIAM -	2019	15th Aug. 1863	Apparatus for producing optical illusions for stage effect in theatres or exhibitions.
HOFFMANN, FREDERICK [CHARLES PHILLIP.	2140	29th Aug. 1863	Shears for cutting metal and other substances.
HOFFMANN, FREDERICK [CHARLES PHILLIP.	2172	2nd Sept. 1863	Machines for crushing hard substances, for washing ores and minerals, and for separating earth and earthy matter from solid substances.
HOFMANN, AUGUSTUS WILLIAM	1201	22nd May 1863	Preparing colouring matters for dyeing and printing.
HOGG, JAMES, JR. - - -	1411	8th June 1863	Manufacture of show cards.
HOLBOROW, ETHELBERT -	1805	18th July 1863	Construction of "sights" for fire-arms.
HOLCROFT, GEORGE - - -	302	3rd Feb. 1863	Preparing cotton for the operation of spinning and weaving.
HOLCROFT, GEORGE - - -	1084	29th April 1863	Construction of pyrometers.
HOLCROFT, HENRY - - -	193	21st Jan. 1863	Improved machinery for separating substances of different specific gravities.
HOLDEN, ANDREW TAYLOR -	1841	23rd July 1863	Carriage and other springs.
HOLDEN, HUGH - - -	2816	12th Nov. 1863	Shuttles for weaving.
HOLDERNESS, THOMAS HUNTER	2649	27th Oct. 1863	Propelling navigable vessels.
HOLDREGE, HENRY - - -	3029	2nd Dec. 1863	Improvements in the process and manner of making gas for illuminating, heating and other purposes, a part of which may also be applied to the production of metallic oxydes. (Communicated by William Henry Gwynne.)
HOLGATE, HENRY - - -	2443	6th Oct. 1863	Manufacture of pickers used in weaving.
HOLGATE, THOMAS - - -	2443	6th Oct. 1863	Manufacture of pickers used in weaving.
HOLGATE, WILLIAM - - -	2443	6th Oct. 1863	Manufacture of pickers used in weaving.
HOLLAND, JAMES - - -	2345	23rd Sept. 1863	Looms for weaving.
HOLLAND, WILLIAM - - -	2184	4th Sept. 1863	Construction of chronometers and other time-keepers.
HOLLAND, WILLIAM - - -	3255	23rd Dec. 1863	Looms for weaving.
HOLLANDS, EDWARD RICHARD	2657	27th Oct. 1863	Machinery for punching, cutting and pressing metals and other materials.
HOLLANDS, EDWARD RICHARD	3176	16th Dec. 1863	Portable hydraulic punching apparatus.
HOLLEY, ALEXANDER - - -	481	21st Feb. 1863	Manufacture of armour plates for ships and other structures. (Patented by John Brown.)
HOLLEY, GEORGE WASH- [INGTON.	1156	8th May 1863	Coating wrought or other iron to protect it from corrosion or oxydation. (Patented by William Clark.)
HOLLIDAY, THOMAS - - -	1148	7th May 1863	An improved blue colouring matter.
HOLLINGSWORTH, ALFRED [JAMES.	1409	8th June 1863	A new or improved spirit-compass with screw lever.
HOLLINGWORTH, JAMES - -	2654	27th Oct. 1863	Means or apparatus employed in weaving,
HOLLINSHEAD, WILLIAM -	513	24th Feb. 1863	Apparatus for the production and transmission of gas or other fluids.
HOLMAN, STEPHEN - - -	2707	31st Oct. 1863	Improvements in machinery for raising and forcing fluids, parts of which improvements are also applicable to steam-engines, blast engines, exhausters and other machines.

[Hol]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Hou]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOLMES, FREDERICK ROBERT	1758	14th July 1863	Threshing and dressing machines.
HOLMES, GEORGE THOMAS -	1758	14th July 1863	Threshing and dressing machines.
HOLMES, JAMES - - -	1758	14th July 1863	Threshing and dressing machines.
HOLT, GEORGE - - -	124	14th Jan. 1863	Improvements in apparatus for sweeping or cleaning chimneys, and also in apparatus for preventing chimneys from smoking.
HOLT, HENRY - - -	978	20th April 1863	A better and more economical mode of securing the bands of locomotive engine, and tender springs, also a new method of applying the same.
HOLT, JAMES - - -	183	21st Jan. 1863	Willowing and opening cotton and other fibrous substances.
HOLTHAUSEN, FREDERIC -	1202	13th May 1863	An improved portable copying press.
HOME, GEORGE - - -	433	17th Feb. 1863	Projectiles.
HOOK, ALBERT - - -	2072	20th Aug. 1863	Manufacture of cartridges. (Patented by William Edward Newton.)
HOOK, ALBERT - - -	2870	16th Nov. 1863	Manufacture of cartridges. (Patented by George Tomlinson Bousfield.)
HOOPER, WILLIAM - - -	505	24th Feb. 1863	Improvements in insulating and protecting telegraphic and other wires and rods, and in machinery connected therewith.
HOPE, HENRY - - -	1031	25th April 1863	Valves for water, steam and gas.
HOPE, THOMAS - - -	63	7th Jan. 1863	Skate fasteners. (Patented by George Tomlinson Bousfield.)
HOPE, WILLIAM - - -	1293	23rd May 1863	Lap machines for preparing cotton and other fibrous substances.
HOPE, WILLIAM - - -	1430	9th June 1863	Certain improvements in machinery for grinding card teeth.
HOPKINS, JOHN - - -	1299	23rd May 1863	Improvements in points and in crossings used on railways and on tramways.
HOPKINS, THOMAS, Jr. -	2104	26th Aug. 1863	Carriage door handles.
HOPKINSON, JOHN - - -	1261	20th May 1863	Construction of self-lubricating bearings for shafts and axles.
HOPKINSON, JOHN - - -	1480	13th June 1863	Improvements in the mode of securing or fastening the ends of metal bands and in machinery for preparing the same.
HOPWOOD, THOMAS HENRY -	403	14th Feb. 1863	Tongs or forceps for grasping articles out of reach of the hand.
HORNSBY, RICHARD - - -	1761	14th July 1863	Reaping and mowing machines.
HORNSBY, RICHARD, Jr. -	1726	10th July 1863	Improvements in traction engines, and in apparatus for ploughing and tilling land by steam and other power, part of which improvements is also applicable to driving or giving motion to machinery.
HORNSBY, RICHARD, Jr. -	3052	4th Dec. 1863	Machinery for threshing and screening wheat and other grain.
HORNSBY, RICHARD, Jr. -	3054	4th Dec. 1863	Reaping and mowing machines.
HORSIN, JOSEPH LOUIS -	1419	8th June 1863	Construction of kites. (Patented by William Edward Gedge.)
HORSLEY, THOMAS - - -	2410	1st Oct. 1863	Breech-loading fire-arms.
HORTON, WILLIAM - - -	1847	23rd July 1863	Fire-arms.
HOUDAYER, MAXIME CHARLES [EDOUARD.]	3299	30th Dec. 1863	An improved apparatus to be attached to locomotive engines for the purpose of removing obstructions from railways.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOUGHTON, VASCONCELLOS -	747	20th March 1863	Lamps and lamp wicks. (Partly communicated by David Eldon Hall.)
HOUGHTON, VASCONCELLOS -	2305	18th Sept. 1863	Lamps and lamp wicks. (Partly communicated by David Eldon Hall.)
HOUSE, HENRY ALONZO -	1137	6th May 1863	Sewing-machines. (Patented by Alfred Vincent Newton.)
HOUSE, JAMES ALFORD -	1137	6th May 1863	Sewing-machines. (Patented by Alfred Vincent Newton.)
HOVELACQUE, EDOUARD [JOSEPH.]	2669	28th Oct. 1863	An improvement in or addition to military knapsacks, travelling bags and other similar articles. (Patented by Michael Henry.)
HOVELACQUE, EMILE AUGUSTE	2669	28th Oct. 1863	An improvement in or addition to military knapsacks, travelling bags and other similar articles. (Patented by Michael Henry.)
HOVELACQUE, HENRY AUGUS- [TIN JOSEPH.]	2669	28th Oct. 1863	An improvement in or addition to military knapsacks, travelling bags and other similar articles. (Patented by Michael Henry.)
HOWARD, CHARLES - -	2943	23rd Nov. 1863	An improved watch case pendant applicable also to other articles.
HOWARD, JAMES - - -	880	7th April 1863	Improvements in steam-engines and in the means of applying the same to the tilling of land, also in apparatus to be used with such engines in the tilling of land.
HOWARD, JOHN - - -	34	5th Jan. 1863	Warping or beaming machines.
HOWARD, THOMAS - - -	2059	19th Aug. 1863	Certain improvements in machinery for spinning cotton, flax, wool, silk and other fibrous substances.
HOWARTH, EDMUND - -	1533	19th June 1863	Certain improvements in apparatus for steaming cotton or other fibrous substances.
HOWDEN, JAMES - - -	3212	19th Dec. 1863	Improvements in steam-engines and boilers, and in processes or apparatus to be employed in working the same.
HOWE, AMASA - - -	2407	1st Oct. 1863	Improved apparatus for cleaning rice and other grain. (Patented by William Edward Newton.)
HOWE, ELIAS, JR. - - -	2727	4th Nov. 1863	Sewing-machines.
HOWELL, GEORGE - - -	1308	25th May 1863	A new double action self-feeding stamping and printing machine.
HOWELL, GEORGE - - -	2261	15th Sept. 1863	Improvements in machinery for stamping or obliterating and printing, especially applicable to post office purposes, parts of which improvements are applicable to machines in which cams are employed.
HOWELL, GILBERT - - -	2583	21st Oct. 1863	Apparatus for condensing metallic and other fumes.
HOWELL, JOSEPH BENNETT -	1887	30th July 1863	Ordnance, fire-arms and projectiles.
HOWES, EDWARD - - -	129	15th Jan. 1863	Railway, ship and other lamps.
HOWIE, JOHN - - -	627	5th March 1863	Construction of the crossings of railways.
HOWLETT, WILLIAM - - -	2952	24th Nov. 1863	Improvements in printing floor cloths, carpets and similar goods, and in the machinery or apparatus to be employed therein.

[Hoy]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Hug]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HOYOS, FELIX - - -	702	16th March 1863	An improved stove or fire-grate for heating, cooking, boiling or other similar purposes.
HOYT, JEHIEL KEELER - -	2768	7th Nov. 1863	Revolving fire-arms. (Communicated by Benjamin Franklin Joslyn.)
HUBER, ALCIDE LOUIS JOSEPH	65	7th Jan. 1863	Permanent way of railways. (Patented by John Henry Johnson.)
HUDDART, GEORGE AUGUSTUS	60	7th Jan. 1863	Buttons.
HUDDART, GEORGE AUGUSTUS	509	24th Feb. 1863	Improved means of imparting heat to fluids.
HUDDART, GEORGE AUGUSTUS	1193	12th May 1863	Improved apparatus for cutting slate.
HUDSON, JOSEPH - - -	450	18th Feb. 1863	Improvements in the treatment of steatite and in its application to certain purposes.
HUDSON, WILLIAM - - -	530	25th Feb. 1863	Looms for weaving.
HUDSON, WILLIAM - - -	1056	27th April 1863	Looms for weaving.
HUDSON, WILLIAM - - -	1994	12th Aug. 1863	Looms for weaving.
HUGHES, DAVID EDWARD -	241	27th Jan. 1863	Means or apparatus for effecting telegraphic communications.
HUGHES, DE BOSCO - - -	2841	14th Nov. 1863	Producing dramatic and other like effects on the stage or in a room.
HUGHES, EBENEZER WILLIAM	984	20th April 1863	Turn tables, turn bridges and slips.
HUGHES, EDWARD - - -	1446	10th June 1863	Improvements in apparatus for applying one or more colors of ink to type, in letter-press printing by hand.
HUGHES, EDWARD - - -	2726	4th Nov. 1863	Fans for forcing and exhausting air or other gases.
HUGHES, EDWARD JOSEPH -	3045	4th Dec. 1863	Process or processes of producing aniline black on cotton fabrics or yarns. (Communicated by Honoré Cordillot.)
HUGHES, EDWARD THOMAS -	17	2nd Jan. 1863	Producing designs upon velvets, cloth, furniture hangings and similar materials. (Communicated by Alphonse Eymin and Jean Marie Tourres.)
HUGHES, EDWARD THOMAS -	79	9th Jan. 1863	Improvements in machinery or apparatus for printing or staining woven fabrics, warps, paper and other articles. (Communicated by Joseph Kien.)
HUGHES, EDWARD THOMAS -	214	23rd Jan. 1863	Breech-loading fire-arms. (Communicated by Alexander Schmalz.)
HUGHES, EDWARD THOMAS -	370	11th Feb. 1863	Apparatus for drilling wood, stone, iron or other materials. (Communicated by Joseph Julien Chenal.)
HUGHES, EDWARD THOMAS -	475	21st Feb. 1863	Improvements in the treatment of colouring matters derived from tar, for the purpose of making them applicable for painting. (Communicated by Barthélemy Dupuy and Antoine Vibert.)
HUGHES, EDWARD THOMAS -	486	23rd Feb. 1863	Process of cleaning organic matter. (Communicated by François Théophile Moison.)
HUGHES, EDWARD THOMAS -	552	27th Feb. 1863	Machinery or apparatus for doubling or twisting yarn, thread, braid, rope or similar articles. (Communicated by Jean Marie Daillon.)
HUGHES, EDWARD THOMAS -	824	31st March 1863	An improved composition for rendering cloth, paper and similar articles transparent and waterproof. (Communicated by James Hodgskin.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HUGHES, EDWARD THOMAS -	871	6th April 1863	Machinery or apparatus for manufacturing the ornamental tips of parasols, umbrellas and similar articles. (Communicated by Leon Sestier.)
HUGHES, EDWARD THOMAS -	1274	21st May 1863	Improvements in breech-loading fire-arms and in cartridges connected with the same. (Communicated by Rudolph Mayer.)
HUGHES, EDWARD THOMAS -	1357	30th May 1863	Apparatus for the transmission of motive-power. (Communicated by Thomas Laders.)
HUGHES, EDWARD THOMAS -	1617	27th June 1863	Improvements in couplings for hose pipes and also in connecting axles to the naves or bosses of wheels. (Communicated by Edmund Blodget Juckett.)
HUGHES, EDWARD THOMAS -	2220	9th Sept. 1863	Improvements in the manufacture of chenille and in the machinery or apparatus employed therein. (Communicated by Louis Bernardin.)
HUGHES, EDWARD THOMAS -	2344	23rd Sept. 1863	Gas condensers. (Communicated by John Brunt and Alexander Renaux.)
HUGHES, EDWARD THOMAS -	2645	14th Nov. 1863	Apparatus and parts of sewing-machines. (Communicated by Jean Louis Thenen.)
HUGHES, EDWARD THOMAS -	3204	19th Dec. 1863	Improvements in the composition of ink suitable for printing and coloring or shading bank notes and other instruments and documents, by the copper plate, lithographic, typographic, xylographic or other processes of printing. (Communicated by Tracy Edson.)
HUGHES, HESKETH - -	175	20th Jan. 1863	Machinery and apparatus for the manufacture of trimmings and cap fronts.
HUGHES, HESKETH - -	819	30th March 1863	Machinery for shaping metal and plastic substances.
HUGHES, JAMES LEIGH - -	1594	24th June 1863	Ornamenting porcelain.
HUGHES, ROBERT - - -	1473	12th June 1863	An improved implement or apparatus for scraping and sweeping turnpike and other highways, carriage drives and foot walks, or other places requiring to be so cleaned.
HUGHES, THOMAS - - -	2491	10th Oct. 1863	Manufacture of lanthorns.
HUGON, PIERRE - - -	653	9th March 1863	Improved machinery for obtaining and applying motive-power.
HULETT, DAVID - - -	3042	3rd Dec. 1863	Improvements in gas stoves for heating irons and other purposes, and in the construction of irons to be heated and used therewith.
HULL, LIVERAS - - -	67	8th Jan. 1863	An invention having reference to the treatment of ground caoutchouc, and for the purpose of rendering it elastic or improving its elasticity, as well as imparting to such caoutchouc other useful properties.
HULSE, JOSIAH - - -	2862	16th Nov. 1863	An improved mode of attaching door knobs to their spindles.
HULSE, WILLIAM - - -	128	15th Jan. 1863	Machinery for the manufacture of taper metallic tubes.
HULSE, WILLIAM WILSON -	51	6th Jan. 1863	Ordnance.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
HUMBY, JAMES - - -	546	26th Feb. 1863	Furnaces and apparatus for manufacturing oxide of zinc or zinc white. (Communicated by Heinrich Felsch.)
HUMFREY, CHARLES - -	3183	16th Dec. 1863	Dissolving india-rubber.
HUMFREY, CHARLES, the younger	2502	12th Oct. 1863	Means and method of purifying hydrocarbons.
HUMPHREYS, THOMAS - -	2938	21st Nov. 1863	An improvement in yarn strings for tying up fire wood.
HUMPHREYS, EDWARD - -	377	11th Feb. 1863	Apparatus for steering ships.
HUMPHREYS, EDWARD - -	1421	8th June 1863	Surface condensers.
HUNT, EDMUND - - -	1311	25th May 1863	Posts or pillars for fences and gates. (Communicated by David Middleton.)
HUNT, THOMAS - - -	977	18th April 1863	Improved apparatus for obtaining motive-power.
HUSBAND, WILLIAM - -	470	20th Feb. 1863	Apparatus for raising sewage and water.
HUSKINSON, HENRY CHARLES	2300	18th Sept. 1863	Manufacture of buttons.
HUSSEY, DANIEL - -	1599	25th June 1863	An invention having reference to bobbins and the winding of roving or yarn thereon.
HUSSEY, THOMAS JAMES -	1566	22nd June 1863	An improved method or process for obtaining patterns and designs for the arts and manufactures. (Patented by Francis Boulton.)
HUTCHINSON, HIRAM - -	1642	1st July 1863	Boots and shoes.
HUTCHINSON, HIRAM - -	2630	21st Sept. 1863	Machinery for manufacturing moulded articles of india-rubber. (Communicated by John Green.)
HUTCHINSON, JOHN - -	2654	27th Oct. 1863	Means or apparatus employed in weaving.
HUTCHINSON, WILLIAM - -	2225	9th Sept. 1863	Steam-engines.
HUTCHINSON, WILLIAM - -	2494	12th Oct. 1863	Manufacture of fittings for powder flasks.
HUTCHINSON, WILLIAM NEL- [SON.	1481	13th June 1863	Means of and apparatus for cleansing ships' bottoms and sides.
HUTCHINSON, WILLIAM NEL- [SON.	2576	20th Oct. 1863	Ordnance.
HUTTON, JOHN - - -	1808	20th July 1863	Manufacture of hollow cutting tools.
HUTTON, WILLIAM ROSS -	2254	14th Sept. 1863	An improved lubricating compound.
HYATT, THADDEUS - -	3193	18th Dec. 1863	An improved shop or window shutter made of corrugated sheet iron.
HYDE, WILLIAM PENN - -	1424	8th June 1863	An improvement in needles. (Patented by William Edward Newton.)

I.

ILLINGWORTH, ABRAHAM -	1373	2nd June 1863	Improvements in boots and shoes or similar coverings for the feet, and in the manufacture thereof.
ILLINGWORTH, ALFRED -	2815	12th Nov. 1863	Means or apparatus employed in preparing and twisting cotton, wool and other fibrous materials.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ILWHAM, JAMES MC - -	2233	10th Sept. 1863	Machinery or apparatus for winding yarns or thread.
ILWHAM, JAMES MC - -	2838	14th Nov. 1863	Looms for weaving.
IMHOFF, CHARLES - -	1611	26th June 1863	Improved apparatus for placing tyres on wheels or hooping or ferruling generally, while the metal is hot. (Patented by William Edward Gedge.)
IMRAY, JOHN - - -	2946	23rd Nov. 1863	Presses.
INCHLEY, JOSEPH - -	2516	14th Oct. 1863	Valves for double cylinder steam-engines.
INGALLS, SETH HASKELL -	2115	27th Aug. 1863	Improved method of storing and holding petroleum and other oils, naphtha and other products of distillation containing essential oils. (Patented by Theodore Bourne.)
INGHAM, EDWARD - - -	327	5th Feb. 1863	An improved apparatus for and means of dyeing wool in the sliver from which "mixture yarns" may be drawn.
INGHAM, WILLIAM - - -	2561	20th Oct. 1863	Manufacture of copper rollers used for printing calico or other materials.
INGLEDEW, SILVESTER - -	1059	28th April 1863	Certain improvements in the method of obtaining iron from its ore, and in the subsequent treatment thereof for converting the product into a metallic state, and in apparatus connected therewith.
INGLEFIELD, EDWARD AU- [GUSTUS.	3016	1st Dec 1863	Improvements in apparatus for mounting and working guns used in ships and other floating vessels, and in fortifications.
INGLIS, ALEXANDER - - -	2492	12th Oct. 1863	Improvements in taps or cocks, part of which improvements is applicable to the lubrication and protection of the journals of revolving shafts, axles or spindles.
INGLIS, JAMES - - -	532	25th Feb. 1863	Machinery or apparatus for folding paper and other fabrics or materials.
INGLIS, JOHN - - -	846	2nd April 1863	Improvements in making moulds for casting and in apparatus connected therewith.
INGLIS, JOHN - - -	2603	22nd Oct. 1863	Improvements in the manufacture of metallic foils and in the apparatus to be employed therein.
INGLIS, WILLIAM - - -	652	9th March 1863	Steam-boilers and engines.
INGRAM, THOMAS - - -	239	27th Jan. 1863	Looms and apparatus for weaving.
INNES, JOHN MC - - -	2478	9th Oct. 1862	Improvements in sheathing for navigable vessels of iron or wood, which sheathing is also applicable to the covering of roofs, walls and other purposes.
INNES, STEPHEN MOUNT- [CASHEL.	386	13th Feb. 1863	Construction of pianofortes.
INSKEEP, GEORGE - - -	1883	30th July 1863	An improved mill for grinding bones, grain, logwood and such like substances.
INTYRE, JOHN MC - - -	602	4th March 1863	An improved mode of applying and fastening metal sheathing to the bottoms of iron ships or vessels, and to iron for other uses.
INWARDS, CHARLES - - -	2729	4th Nov. 1863	Improved arrangements for facilitating the teaching and playing of stringed instruments of the character of the violin, viola, violoncello, double bass and guitar.

Iod]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Jac

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
IODOCIUS, PIERRE CHARLES [ALEXANDRE.]	1751	13th July 1863	Improvements in fishing and in the apparatus or means to be employed therein. (Communicated by John d'Atouquia de Franca Netto.)
IRONMONGER, ELI - - -	1348	29th May 1863	An improved loose clip and socket joint applicable to bedsteads, sofas, chairs and other articles of furniture, and of fencing.
IRONMONGER, ELI - - -	2992	28th Nov. 1863	Means of fitting together or connecting articles or parts of articles.
IRVINE, ROBERT - - -	1342	28th May 1863	Treating the waste liquor obtained in the preparation of esparto grass.
IRVINE, ROBERT - - -	2315	19th Sept. 1863	Extraction or manufacture of oils from vegetable substances.
IRVINE, ROBERT - - -	2418	2nd Oct. 1863	Manufacture of paper.
ISHERWOOD, JAMES - - -	649	9th March 1863	Working presses for making up yarn in bundles.
ISLER, EDWARD - - -	288	31st Jan. 1863	New or improved apparatus for cleaning the beams of mules and spinning frames, collecting the dust and waste thereof, and also for cleaning the flooring underneath the mule carriages. (Patented by Frederick Tolhausen.)
IVETT, EPHRAIM - - -	1529	18th June 1863	Improved machinery for manufacturing tiles.
IVORY, THOMAS - - -	2437	5th Oct. 1863	Improvements in steam-engines and in furnaces and boilers for the same.

J.

JACK, JAMES DEAS - - -	2211	8th Sept. 1863	Moulding or shaping metals.
JACKSON, CHARLES - - -	2173	3rd Sept. 1863	Bolts for fastening doors, windows, shutters and for other like purposes.
JACKSON, PETER ROTHWELL -	1832	22nd July 1863	Machinery for rolling hoops and tyres.
JACKSON, PETER ROTHWELL -	2493	12th Oct. 1863	Improvements in the manufacture of hoops and tyres for railway wheels and other purposes, and in the machinery employed therein.
JACKSON, RICHARD HUGHES -	2064	19th Aug. 1863	Machinery for sawing wood and other fibrous substances.
JACKSON, ROBERT RAYNSFORD	1265	20th May 1863	Looms for weaving.
JACKSON, SAMUEL - - -	1019	24th April 1863	Certain improvements in apparatus for heating water in furnaces, flues and chimneys.
JACKSON, WILLIAM - - -	421	16th Feb. 1863	Pumps.
JACKSON, WILLIAM - - -	622	5th March 1863	Steam-engines.
JACKSON, WILLIAM - - -	2057	19th Aug. 1863	Improved arrangements of the parts in sewing-machines, using shoemakers' wax thread suitable for heavy boot or other leather work to which it may be applied.
JACOBS, THOMAS LUCKER -	306	3rd Feb. 1863	An improved mode of and apparatus for cleaning casks,

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JACQUEMIN, VINCENT ETIENNE [EUGENE.]	418	14th Feb. 1863	Improvements in wrought iron casements and in the means for fastening the same, which improvements are also partly applicable to the framework of glass doors, conservatories and similar structures. (Patented by John Henry Johnson.)
JAEGER, CHARLES - - -	2150	31st Aug. 1863	An improved watch. (Patented by William Edward Gedge.)
JAFFARY, FRANÇOIS - -	89	10th Jan. 1863	Improved plates or slabs for preserving apartments from the effects of damp, and which are also applicable in the composition of plinths and foundations for walls. (Patented by Louis Henry Emmanuel Lepreux.)
JAMES, ENOCH WATKIN -	2476	9th Oct. 1863	Improved apparatus and arrangements for giving buoyancy to or raising sinking or submerged ships and other sinking or sunken bodies.
JAMES, ENOCH WATKIN -	3000	30th Nov. 1863	Improved apparatus for drilling or boring rock and other earthy substances for exploring and other purposes.
JAMES, GEORGE HENRY -	1856	25th July 1862	Manufacture of covers for purses, wallets and pocket-books.
JAMES, HENRY BENSON -	3082	8th Dec. 1863	An improved composition for covering steam-boilers and pipes and other surfaces.
JAMES, JAMES MARSHALL -	1856	25th July 1863	Manufacture of covers for purses, wallets and pocket-books.
JAMES, JOHN WANKLYN -	2392	29th Sept. 1863	Water-closets.
JAMES, JOSHUA - - -	349	7th Feb. 1863	An improved covering for hooped skirts.
JAMES, JOSIAH - - -	1856	25th July 1863	Manufacture of covers for purses, wallets and pocket-books.
JAMES, WILLIAM HENRY -	1055	27th April 1863	Improvements in indicating the locality of fire, applicable also to denoting the position of ships.
JANSSENS, FRANÇOIS - -	1355	29th May 1863	Manufacture or preparation of lubricating material. (Patented by John Henry Johnson.)
JACQUES, JAMES ARCHIBALD -	749	20th March 1863	Machines or apparatus for washing and wringing cloths or fabrics.
JARDINE JOHN - - -	1361	30th May 1863	Carriages used in machines employed in the manufacture of lace or other fabrics.
JARRIEL, DOMINIQUE - -	107	13th Jan. 1863	Improvements in machinery for lifting bobbins off spindles in spinning machines, and in lubricating spindles. (Patented by Richard Archibald Broome.)
JARRY, ETIENNE JOSEPH -	1379	2nd June 1863	Machinery to be worked by steam or other power for clearing and ploughing land.
JARVIE, NEDRICK - - -	1960	8th Aug. 1863	Improvements in the manufacture of oakum and in apparatus therefor.
JARVIS, JOHN STEPHEN -	2976	26th Nov. 1863	An improved shirt collar.
JARVIS, THOMAS - - -	1345	28th May 1863	Improvements in obtaining vegetable extracts and in apparatus employed therein.
JAUBERT, JOSEPH - - -	2560	20th Oct. 1863	An improved treatment of textile substances to obtain a species of or substitute for cotton. (Patented by Ernest Henry Luebbers.)
JAY, SAMUEL - - -	2536	16th Oct. 1863	Manufacture of stockings and drawers.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JEAN, LOUIS JOSEPH JOACHIN.	2377	28th Sept. 1863	Improvements in the construction of steam-boilers and in their fire grates.
JEFFCOTT, JOHN CRONIN -	399	14th Feb. 1863	Improvements in the production and generation of gases, and also in apparatus connected therewith.
JEFFREYS, CHARLES - -	3187	17th Dec. 1863	Jewel, photograph, instrument and other cases.
JEFFREYS, JULIUS - - -	1052	27th April 1863	Improvements in constructing surface condensers and apparatus for heating and cooling fluids.
JEFFS, EDWARD JAMES - -	1003	22nd April 1863	Making and constructing of carriage ways.
JENKIN, FLEEMING - - -	1553	20th June 1863	An electric tell tale compass.
JENNINGS, JOSIAH GEORGE -	1296	23rd May 1863	Chimneys, fire-places, stoves and flues for warming and ventilating apartments.
JENNINGS, JOSIAH GEORGE -	1506	16th June 1863	Moulding or vulcanizing articles of india-rubber.
JENNINGS, JOSIAH GEORGE -	1625	30th June 1863	Improvements in stoppers and lids or covers for jars, bottles and other vessels, also in closing and fastening other articles.
JENNINGS, JOSIAH GEORGE -	2893	18th Nov. 1863	Improvements in the manufacture of tubes, rings and cords of india-rubber, and in covering telegraph wires.
JEWELL, JOHN - - -	1874	28th July 1863	Setting boilers.
JOBSON, ALFRED - - -	2092	24th Aug. 1863	Machinery for drawing or discharging coke ovens and loading coke wagons.
JOBSON, ROBERT - - -	1530	18th June 1863	Machinery for making moulds to be employed when casting metal.
JOHNSON, BENJAMIN - - -	1897	31st July 1863	Pianofortes.
JOHNSON, CHARLES - - -	1111	4th May 1863	Improvements in the production of show tablets, advertizement tablets, name plates, architectural facings and decorations, and other ornamental, decorative and inscriptive articles.
JOHNSON, EDMUND - - -	1111	4th May 1863	Improvements in the production of show tablets, advertizement tablets, name plates, architectural facings and decorations, and other ornamental, decorative and inscriptive articles.
JOHNSON, JAMES - - -	1461	11th June 1863	Lubricating apparatus for the cylinders of steam-engines.
JOHNSON, JAMES - - -	1462	11th June 1863	Reversing levers for locomotive engines and others.
JOHNSON, JAMES - - -	2769	7th Nov. 1863	Apparatus for lubricating the cylinders and other parts of steam-engines.
JOHNSON, JOHN HENRY - -	52	6th Jan. 1863	Improvements in rocket torpedos and in the apparatus for directing the flight of the same under water. (Communicated by Rufus Waples and Pascal Plant.)
JOHNSON, JOHN HENRY - -	65	7th Jan. 1863	Permanent way of railways. (Communicated by Alcide Louis Joseph Huber.)
JOHNSON, JOHN HENRY - -	257	28th Jan. 1863	Improvements in the manufacture of braid and in machinery or apparatus employed therein. (Communicated by Thomas James Sloan.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY -	413	14th Feb. 1863	Improvements in wrought iron casements and in the means for fastening the same, which improvements are also partly applicable to the framework of glass doors, conservatories and similar structures. (Communicated by Louis Pierre Vincent, Etienne Eugene Jacquemin, Jean Charles Douriez and Gustav Joseph Legros.)
JOHNSON, JOHN HENRY -	591	27th Feb. 1863	Machinery or apparatus employed in the preparation or treatment of hemp and other textile materials. (Communicated by François Jules Vignaud.)
JOHNSON, JOHN HENRY -	658	9th March 1863	Improvements in the treatment of certain fibrous vegetable substances with a view to the production of textile materials therefrom. (Communicated by Viltzio Secondo Ferrero.)
JOHNSON, JOHN HENRY -	687	13th March 1863	Fastenings suitable for portions of harness and other purposes. (Communicated by Victor Gueldry.)
JOHNSON, JOHN HENRY -	783	25th March 1863	Improvements in the manufacture of zinc and in the apparatus employed therein. (Communicated by Adrien Muller.)
JOHNSON, JOHN HENRY -	798	26th March 1863	Improvements in furnaces or fire-places and in apparatus to be used in connection therewith. (Communicated by Louis Hebert.)
JOHNSON, JOHN HENRY -	876	7th April 1863	Improvements in machinery or apparatus for drying grain, applicable also to the manufacture of malt. (Communicated by George Henry Fourdrinier.)
JOHNSON, JOHN HENRY -	877	7th April 1863	Improvements in polishing precious and hard stones and in the machinery or apparatus employed therein. (Communicated by Victor Emanuel Tamisier.)
JOHNSON, JOHN HENRY -	1027	24th April 1863	A filtering apparatus for treating by pressure oils, syrups and all sorts of liquids susceptible of filtering. (Communicated by Edmond Marquis de Ruffo Bonneval and Joseph Mouren.)
JOHNSON, JOHN HENRY -	1066	28th April 1863	Improvements in drying and cooling grain and in the machinery or apparatus employed therein. (Communicated by William Henry Sutton and James John Gibson.)
JOHNSON, JOHN HENRY -	1067	28th April 1863	Apparatus for preserving property in case of shipwreck. (Communicated by George Mitchell.)
JOHNSON, JOHN HENRY -	1094	30th April 1863	Rotatory engines. (Communicated by Wilhelm Heinrich Christian Voss.)
JOHNSON, JOHN HENRY -	1115	5th May 1863	Improvements in the manufacture of wrought iron and steel, and in the apparatus to be employed therein. (Communicated by Adrien Muller.)
JOHNSON, JOHN HENRY -	1175	9th May 1863	Rotatory engines. (Communicated by Enrico Fava.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY -	1251	19th May 1863	Breech-loading fire-arms. (Communicated by Anthony Pollak.)
JOHNSON, JOHN HENRY -	1355	29th May 1863	Manufacture or preparation of lubricating material. (Communicated by François Janssens.)
JOHNSON, JOHN HENRY -	1406	5th June 1863	Smoothing irons. (Communicated by the Society Jean Charles and Company.)
JOHNSON, JOHN HENRY -	1627	30th June 1863	Machinery or apparatus for moulding or shaping pottery ware. (Communicated by Robert Marcher.)
JOHNSON, JOHN HENRY -	1639	1st July 1863	Improvements in coating or covering metal sheets with metals or alloys, and in the apparatus employed therein. (Communicated by Xavier Florentin Girard.)
JOHNSON, JOHN HENRY -	1802	17th July 1863	Improvements in machine knitting needles and in machinery or apparatus for making the same. (Communicated by Thomas Sands.)
JOHNSON, JOHN HENRY -	1953	7th Aug. 1863	Apparatus for preventing sea sickness. (Communicated by Henry Giffard.)
JOHNSON, JOHN HENRY -	2114	26th Aug. 1863	Obtaining and applying motive-power. (Communicated by Pierre Gardère and Charles Patek.)
JOHNSON, JOHN HENRY -	2286	17th Sept. 1863	Life belts and swimming belts. (Communicated by Torrilhon Verdier and Company.)
JOHNSON, JOHN HENRY -	2382	28th Sept. 1863	Improvements in the manufacture of boot and shoe toe pieces or tips, and in the machinery or apparatus employed therein. (Communicated by The American Shoe Tip Company.)
JOHNSON, JOHN HENRY -	2461	7th Oct. 1863	Permanent way of railways. (Communicated by Miguel De Bergue.)
JOHNSON, JOHN HENRY -	2462	8th Oct. 1863	Improvements in propelling ships and in the apparatus employed therein. (Communicated by Eugène Mouline.)
JOHNSON, JOHN HENRY -	2546	17th Oct. 1863	Washing-machines. (Communicated by Doctor Isidore Sollier and Baron Gerard Dedel.)
JOHNSON, JOHN HENRY -	2696	30th Oct. 1863	Manufacture of soap. (Communicated by Jean Baptiste Vasseur and Alexis Mahot.)
JOHNSON, JOHN HENRY -	2884	18th Nov. 1863	Rotatory engines. (Communicated by Enrico Fava.)
JOHNSON, JOHN HENRY -	2927	20th Nov. 1863	Improvements in steam-engines and in apparatus connected therewith. (Communicated by Richard Bristol.)
JOHNSON, JOHN HENRY -	2956	24th Nov. 1863	Rotatory engines. (Communicated by Wilhelm Heinrich Christian Voss.)
JOHNSON, JOHN HENRY -	3062	5th Dec. 1863	Improvements in washing textile fabrics and in the machinery or apparatus employed therein. (Communicated by Madame Rosine Saiglan Bagnères.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOHNSON, JOHN HENRY -	3141	12th Dec. 1863	Improvements in the construction and mode of attaching of india-rubber and other composition soles to boots and shoes or to the uppers thereof. (Communicated by Charles MacBurney.)
JOHNSON, JOHN HENRY -	3142	12th Dec. 1863	Improvements in raising sunken vessels and other submerged dead weights, and in preventing the sinking of vessels in case of accident at sea, and in the apparatus employed therein. (Communicated by James McLeod.)
JOHNSON, JOHN HENRY -	3167	15th Dec. 1863	Improvements in grinding and polishing glass and in the machinery or apparatus employed therein. (Communicated by James Dodge.)
JOHNSON, JOHN HENRY -	3188	17th Dec. 1863	Improvements in cleaning roadways and in the machinery or apparatus employed therein. (Communicated by Thomas Agudio.)
JOHNSON, JOHN HENRY -	3242	23rd Dec. 1863	Shields or tips for boots and shoes. (Communicated by Horace Bearce.)
JOHNSON, JOHN HENRY -	3256	23rd Dec. 1863	Shields or tips for boots and shoes. (Communicated by Horace Bearce.)
JOHNSON, JOHN MORRIS	1111	4th May 1863	Improvements in the production of show tablets, advertisement tablets, name plates, architectural facings and decorations, and other ornamental, decorative and inscriptive articles.
JOHNSON, JOHN ROBERT	2677	29th Oct. 1863	Manufacture of lubricating compounds.
JOHNSON, RICHARD	2109	26th Aug. 1863	Pointing wire rods or wire in order to facilitate their introduction into draw plates.
JOHNSON, RICHARD	2763	6th Nov. 1863	Testing the strength of wire for telegraphic and other purposes.
JOHNSON, THOMAS	1797	17th July 1863	Machinery for washing and cleansing casks.
JOHNSON, WILLIAM	126	14th Jan. 1863	Manufacture of chlorine and bleaching powder, carbonate of soda and soda ash, and sulphate of iron. (Communicated by Thomas Macfarlane.)
JOHNSON, WILLIAM	217	24th Jan. 1863	Certain improvements in machinery or apparatus for grinding or pointing the "cards" employed in carding-engines.
JOHNSON, WILLIAM	618	5th March 1863	Certain improvements in machinery or apparatus for grinding "cards" employed in carding-engines.
JOHNSON, WILLIAM	792	26th March 1863	Pocket books, purses, wallets and bill cases.
JOHNSTON, ALEXANDER	334	6th Feb. 1863	Propulsion of vessels.
JOHNSTON, ALEXANDER	2447	6th Oct. 1863	Railway carriages.
JOHNSTON, ALEXANDER ROBERT.	1720	10th July 1863	An improved portable fence for sheep and cattle pens or for other enclosures.
JOHNSTON, FRANCIS	444	18th Feb. 1863	Certain improvements in looms for weaving.
JOHNSTON, WILLIAM	764	23rd March 1863	Apparatus for lighting and heating.
JOHNSTON, WILLIAM	2885	16th Nov. 1863	Improvements in taps or valves, in pipe joints, and in the valvular mechanism of water-closets.
JOLLIFFE, THOMAS	2178	3rd Sept. 1863	Improvements applicable to paddle and other propelling wheels for navigable vessels.
JOLLIFFE, WILLIAM	2178	3rd Sept. 1863	Improvements applicable to paddle and other propelling wheels for navigable vessels.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JOLLY, GOTTLIEB - - -	2888	18th Nov. 1863	An improved explosive compound to be used in the manufacture of cartridges, and an improved mode of manufacturing cartridges therewith.
JONCHIER, CLAUDE - - -	3236	22nd Dec. 1863	Feeding steam-boilers and condensers. (Patented by Richard Archibald Brooman.)
JONES, BENJAMIN - - -	3009	1st Dec. 1863	Separating sulphur from alkali waste.
JONES, DAVID - - -	1485	13th June 1863	An improved construction of removable head for casks, applicable to the closing of other vessels.
JONES, EDWARD - - -	1096	1st May 1863	Improvements in drainage and in water-closets, and in the means and apparatus necessary for the same respectively.
JONES, EDWARD - - -	2448	7th Oct. 1863	Apparatus to be used for pumping water out of mines and other places.
JONES, EDWARD - - -	2708	31st Oct. 1863	Manufacture of bricks, drain pipes, traps, sewage tanks and water-closet pans and valves, and the machinery and apparatus necessary for the same.
JONES, FREDERICK JOHN - -	2013	14th Aug. 1863	Locks or fastenings.
JONES, HARRY - - -	23	3rd Jan. 1863	Certain improvements in steam-engines.
JONES, JABEZ - - -	388	13th Feb. 1863	Improvements in the manufacture of lead, tin and other metals or amalgamation of metals of a like fusible nature, into sheets of any required thickness and length, and also coating one or both sides of pipes and sheets of lead and other metal or amalgamation of metals, with tin or other substances, and in the apparatus connected therewith.
JONES, JAMES - - -	8	1st Jan. 1863	Finishing or stiffening textile fabrics.
JONES, JAMES GRAFTON - -	1420	8th June 1863	Machinery and apparatus for working coal and other mines.
JONES, JAMES GRAFTON - -	2327	21st Sept. 1863	Apparatus for giving a reciprocating motion to picks and cutting tools used in getting coal and other minerals and stone.
JONES, JOHN - - -	1477	12th June 1863	Gas regulators.
JONES, JOHN FRANKLIN - -	1064	28th April 1863	Improvements in machinery for the manufacture of paper and of the various kinds of boards produced from fibrous substances. (Patented by William Clark.)
JONES, RICHARD HENRY - -	591	3rd March 1863	Bracelets and brooches.
JONES, ROBERT BAKER - -	2672	28th Oct. 1863	Portable cooking apparatus.
JONES, WALTER THOMAS [WHITMORE.]	3146	12th Dec. 1863	Apparatus to be applied to lamps.
JONES, WILLIAM - - -	851	2nd April 1863	Improvements in the construction of ships or vessels, part of which improvements are also applicable for constructing buildings and for various other purposes in which rolled iron is employed.
JONES, WILLIAM - - -	1949	7th Aug. 1863	Certain improvements in steam-boilers.
JONES, WILLIAM ASHLEY - -	99	12th Jan. 1863	Improvements in the application of power designed for stationary and traction engines, propellers and other machinery. (Patented by William Edward Newton.)
JONES, WILLIAM EDWARD - -	1727	10th July 1863	Permanent way of railways.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
JORDERY, THOMAS - - -	56	7th Jan. 1863	Improvements in lucifer matches, fusees and other similar lights, and in the boxes or holders for containing the same. (Patented by William Squire Bruce.)
JORDERY, THOMAS - - -	1683	7th July 1863	Improvements in lucifer matches, fusees and other similar lights, and in the boxes or holders for containing the same. (Patented by William Squire Bruce.)
JOSLYN, BENJAMIN FRANKLIN	2768	7th Nov. 1863	Revolving fire-arms. (Patented by Jehiel Keeler Hoyt.)
JOSSE, LOUIS PIERRE - - -	135	15th Jan. 1863	An improved apparatus for cleansing wheat or other grain or seeds.
JOURDIN, MICHEL - - -	633	6th March 1863	Machinery for engraving by means of electricity.
JOYCE, SAMUEL - - -	2639	14th Nov. 1863	Improvements in the manufacture of starches by the introduction of coloring matters.
JOYOT, PIERRE - - -	2160	1st Sept. 1863	An improved fabric and improvements in looms for manufacturing the same.
JUCKES, JOHN, Jr. - - -	1496	15th June 1863	Furnaces.
JUCKET, EDMUND BLODGET -	1617	27th June 1863	Improvements in couplings for hose pipes, and also in connecting axles to the naves or bosses of wheels. (Patented by Edward Thomas Hughes.)
JUDKINS, CHARLES TIOT -	42	6th Jan. 1863	New alloys. (Communicated by Moses Gerrish Farmer.)
JUDKINS, CHARLES TIOT -	3211	19th Dec. 1863	Machines for sewing and stitching. (Communicated by Richard Mott Wanzer.)
JUDSON, WILLIAM - - -	2472	8th Oct. 1863	Construction of condensers. (Patented by Alfred Vincent Newton.)
JÜNGER, AUGUST - - -	510	24th Feb. 1863	An improved life preserving garment.
JUNOT, EDME HIPPOLYTE -	459	20th Feb. 1863	Certain improvements in weaving and in the machinery employed therein. (Patented by Henry Bernoulli Barlow.)
JÜRGENS, JÜRGEN LORENZ -	2611	23rd Oct. 1863	Vessels of war.
JUSTICE, PHILIP - - -	862	4th April 1863	An improved construction of pressure gauge. (Patented by Alfred Vincent Newton.)

K.

KAIN, JOHN FRANCIS - - -	1452	11th June 1863	Improvements in umbrellas, parasols, sun-shades, walking sticks and whips, and in brooches and other ornaments.
KANIG, WILHELM ADOLPH [VON.	2322	21st Sept. 1863	Improvements in railway telegraphs and signals, and also in the permanent way and carriages, for preventing railway accidents.
KAUTRET, JEAN ANTOINE -	3262	24th Dec. 1863	An improved kneading machine. (Patented by William Edward Gedge.)

[Key]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Key]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KAY, JAMES - - -	1130	6th May 1863	Certain improvements in apparatus for cleansing potatoes and in decorticating the same and other esculent roots.
KEATS, JOHN - - -	936	14th April 1863	Manufacture of boots, shoes or other coverings for the feet.
KEATS, JOHN - - -	938	14th April 1863	Sewing-machines.
KEATS, WILLIAM - - -	936	14th April 1863	Manufacture of boots, shoes or other coverings for the feet.
KEELING, ENOCH BASSETT -	31	5th Jan. 1863	An improvement in lighting halls, theatres and other buildings.
KELLEN, SAMUEL DUNSEITH [MAC.	1131	6th May 1863	Certain improvements in watches and other time-keepers.
KELLER, SIR ALBERT - -	654	9th March 1863	An improved apparatus for reeling silk direct from cocoons on bobbins.
KELLY, JOHN - - -	1255	19th May 1863	Improvements in the preparation or treatment of peat or turf and the manufacture thereof into charcoal and other fuel, drain pipes, building and other tiles, and in apparatus used therein.
KELSEY, JOHN - - -	1827	21st July 1863	An improved implement for harrowing and smoothing land. (Patented by George Haseltine.)
KELVEY, CHARLES GRANT -	2184	4th Sept. 1863	Construction of chronometers and other time-keepers.
KEMMERER, EUGENE - -	2930	21st Nov. 1863	The collection and cultivation of oyster spawn and brood. (Patented by Hubert Ayckbourn.)
KEMP, EMANUEL - - -	380	12th Feb. 1863	Certain improvements in self-acting mules for spinning.
KENDALL, WILLIAM JOHN -	2469	8th Oct. 1863	An improved walking-stick umbrella.
KENNARD, HOWARD JOHN -	1332	27th May 1863	Improvements in the construction of wrought iron cylinders for piers or piles to bridges, viaducts, or for other foundations or structures where the sinking of cylinders is required.
KENNEDY, JOHN - - -	2673	28th Oct. 1863	Improvements in the construction of ships of war and other vessels, and in masting and rigging the same.
KENNEDY, NEIL, JR. - -	3108	9th Dec. 1863	Fire-arms.
KENT, ROBERT GEORGE - -	1117	5th May 1863	Construction and arrangement of shades and reflectors for gas lights.
KERAVENAN, FRANCIS BER- [NARD DE.	1154	8th May 1863	An improved mechanical movement for producing an impelled current of air for lamps, and which may be used for other purposes. (Patented by Joseph Henry Bailey.)
KERR, JOHN - - -	144	16th Jan. 1863	Certain improvements in the means of retarding or stopping railway and other carriages.
KERSHAW, JOHN - - -	1092	30th April 1863	Improvements in engines, machinery and apparatus for obtaining compressed air and for applying the power thereof in propelling railway and other carriages.
KESSLER, JACQUES LOUIS -	2106	26th Aug. 1863	Apparatus for evaporating and distilling.
KEY, GILBERT TROWARD -	786	25th March 1863	Fog and other signals.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KEY, JOHN - - -	1300	23rd May 1863	Improvements in the manufacture of certain descriptions of iron tubing, and in the means of producing and applying an ornamental case to the same, which said means are also applicable to the production of ornaments in metal for other purposes.
KEYSER, JOSEPH DE - -	805	4th March 1863	Improvements in treating petroleum oil and in the combination thereof with other oils for lubricating and other like purposes.
KIDD, JOSHUA - - -	115	14th Jan. 1863	Improvements in apparatus for measuring the quantity of gas supplied to single burners and increasing its illuminating power.
KIEN, JOSEPH - - -	79	9th Jan. 1863	Improvements in machinery or apparatus for printing or staining woven fabrics, warps, paper and other articles. (Patented by Edward Thomas Hughes.)
KILLOP, HENRY FREDERICK MC	1438	9th June 1863	Compositions for coating or covering ships' bottoms.
KILLOP, HENRY FREDERICK MC	2097	24th Aug. 1863	Cleansing ships' bottoms.
KILSHAW, HENRY - - -	473	21st Feb. 1863	Certain improvements in machinery for preparing and doubling cotton and other fibrous substances.
KILSHAW, HENRY - - -	726	18th March 1863	Certain improvements in looms for weaving.
KIMPTON, THOMAS CHRISTOPHER.	2882	18th Nov. 1863	An apparatus applicable to time, fare, distance and other tables, almanacs, arithmetical calculations, postal and other boxes.
KINDER, ARTHUR - - -	891	8th April 1863	Improvements in coating or covering lead or alloys of lead with tin or alloys of tin, and in the apparatus employed therein.
KINDER, ARTHUR - - -	1083	28th April 1863	Improvements in the manufacture of sheet metal and in ingots or plates of metal, and in the machinery or apparatus employed therein.
KINDER, ARTHUR - - -	2803	22nd Oct. 1863	Improvements in the manufacture of metallic foils and in the apparatus to be employed therein.
KING, HORATIO NELSON - -	1744	13th July 1863	An improved mode of and apparatus for producing spectral illusions on the stage.
KING, JAMES - - -	2247	12th Sept. 1863	Improved means for assisting and regulating the process of fermentation.
KING, JOHN - - -	807	27th March 1863	Improvements in machinery and apparatus for preparing land for seed and for harrowing land.
KING, JOHN - - -	1851	2nd July 1863	Improvements in fencing land and in hanging gates.
KING, JOHN THOMSON - -	1213	14th May 1863	Wicks for oil and other fluid burning lamps. (Communicated by Henry Coulter.)
KING, JOHN THOMSON - -	1978	11th Aug. 1863	Apparatus for containing and distributing gas for lighting railway carriages, steamboats and other moveable vehicles and vessels, railway stations and other places, parts of such apparatus being suitable for governing the supply of gas and air for various purposes.
KINGSBURY, FREDERICK -	1304	23rd May 1863	Construction of orchestras.
KINSEY, HENRY - - -	3127	11th Dec. 1863	Bonnet front machines and apparatus connected therewith.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KIRK, JOHN - - -	2423	2nd Oct. 1863	Looms for weaving.
KIRK, JOSEPH MOXON - -	181	21st Jan. 1863	An improved method of and means or apparatus for finishing textile fabrics.
KIRK, JOSIAH - - -	1906	1st Aug. 1863	Certain improvements in looms for weaving.
KIRKALDY, DAVID - - -	2970	26th Nov. 1863	Improvements in testing or measuring the strength and other properties of various materials and structures, and in apparatus therefor.
KIRKHAM, JOHN - - -	774	24th March 1863	Manufacture of iron and steel.
KIRKHAM, JOHN - - -	1946	6th Aug. 1863	Improved apparatus for generating heat for smelting and other purposes.
KIRKHAM, JOHN - - -	2903	19th Nov. 1863	Treatment of certain ores of iron.
KIRKLAND, JOHN - - -	1850	24th July 1863	Apparatus for working hydraulic presses.
KIRKMAN, GIARDINELLI [SPOONER.	2920	20th Nov. 1863	Apparatus used for connecting railway carriages and trucks.
KIRKWOOD, DAVID - - -	750	20th March 1863	Improvements in breech-loading fire-arms, part of which improvements are also applicable to other descriptions of fire-arms.
KIRKWOOD, JAMES - - -	2138	29th Aug. 1863	Looms for weaving.
KIRRAGE, WILLIAM - - -	1603	25th June 1863	Using apoelastikon hyphasma as a new and improved cloth for floors, roofs, walls, tanks and other linings, being impervious to damp and of great strength and durability.
KITE, JAMES - - -	1347	28th May 1863	Improvements in expressing liquid and moisture from substances and in separating the liquid from the solid portions thereof, applicable also to the filtration of liquids.
KITSON, FREDERICK WILLIAM	1326	26th May 1863	Improvements in the manufacture of the tyres for railway wheels, and in the means of securing the tyres to the wheels.
KITSON, JAMES - - -	1326	26th May 1863	Improvements in the manufacture of the tyres for railway wheels, and in the means of securing the tyres to the wheels.
KLINGENFELD, FRIEDERICH -	2750	6th Nov. 1863	Fluid meters. (Patented by Charles Denton Abel.)
KLINGENFELD, FRIEDERICH -	2776	7th Nov. 1863	Apparatus for raising and lowering bodies. (Patented by Charles Denton Abel.)
KNAB, DAVID CLOVIS - - -	821	30th March 1863	An improved process for producing yellow coloring matters and other colors which may be derived therefrom. (Patented by William Edward Newton.)
KNIGHT, JOHN ADAMS - - -	46	6th Jan. 1863	Printing presses. (Communicated by Nathaniel Knight.)
KNIGHT, NATHANIEL - - -	46	6th Jan. 1863	Printing presses. (Patented by John Adams Knight.)
KNIGHT, RICHARD - - -	963	17th April 1863	Improvements in treating and preparing iron, copper and other wires for telegraphic and other uses, for the purpose of preserving them from corrosion or decay.
KNOTT, JOSEPH HENRY - - -	1123	5th May 1863	Pumps.
KNOWLES, JOHN - - -	1019	24th April 1863	Certain improvements in apparatus for heating water in furnaces, flues and chimneys.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
KNOWLES, JOHN - - -	3248	23rd Dec. 1863	Certain improvements in apparatus for removing the sediment and scum from the interior of steam-boilers.
KNOWLES, PETER - - -	2015	20th Nov. 1863	Machinery for ginning cotton and for opening cotton and other fibrous substances.
KNOWLES, SAMUEL - - -	1589	24th June 1863	Machinery for plaiting and measuring woven fabrics.
KNOWLES, THOMAS - - -	1811	20th July 1863	Improvements in machinery for opening, carding and cleaning cotton and other fibrous materials when in a manufactured or partly manufactured state.
KNOWLES, THOMAS - - -	3040	3rd Dec. 1863	Improvements in the manufacture of rollers or cylinders used by calico printers, which improvements are also applicable to other purposes.
KNOWLES, WILLIAM - - -	1978	11th Aug. 1863	Certain improvements in machinery for preparing, spinning and doubling cotton and other fibrous substances.
KOLB, ADOLPHE - - -	1722	10th July 1863	Improvements in the construction of soil pits and in the mode of emptying the same. (Patented by James John Shedlock.)
KÖTTGEN, GUSTAV - - -	1312	25th May 1863	An improved binding to be used for trimming woollen cloth garments.
KRAMER, HENRY EDWARD -	2146	31st Aug. 1863	Printing in colours pictures or devices to be used in ornamenting porcelain, stoneware, earthenware, or any other substances where the colours can be annealed or melted or burnt in.
KRAUSKOPF, FERDINAND -	1283	22nd May 1863	Improvements in stoppers or bungs for closing or stopping bottles, jars and other vessels, and the muzzles of rifles, and for other like purposes. (Patented by Charles Maschwitz.)
KYLE, DAVID DUNNE - - -	1545	20th June 1863	An improvement in baths.

L.

LABARRE, AIMÉ - - -	2390	29th Sept. 1863	Permanent way of railways. (Patented by William Edward Gedge.)
LABAT, PIERRE - - -	156	17th Jan. 1863	Manufacture of buttons. (Patented by William Edward Newton.)
LABURTHE, CLÉMENT - -	3206	19th Dec. 1863	An improved apparatus for racking and decanting liquids. (Patented by William Edward Gedge.)
LACAZE, GUILLAUME MADE- [LAINE	502	24th Feb. 1863.	Manufacture of hats. (Patented by William Edward Gedge.)
LACHAPELLE, HERMANN -	3226	21st Dec. 1863	Mode of and apparatus for controlling the passage of fluids to and from casks and other vessels. (Patented by Michael Henry.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LACROIX, PIERRE DOMINIQUE	3198	18th Dec. 1863	Manufacture of socks. (Patented by Henri Adrien Bonneville.)
LADD, WILLIAM FITTOCK -	467	20th Feb. 1863	An improvement in boilers for disintegrating and pulping vegetable substances. (Patented by William Clark.)
LAEDERICH, CHARLES EUGENE	1339	28th May 1863	Watches.
LAFARGE, JEAN JACQUES LEO- [POLD ROUSSEAU DE.	376	11th Feb. 1863	Photographic apparatus. (Patented by Richard Archibald Brooman.)
LAFOND, GUSTAVE - - -	143	15th Jan. 1863	Looms or machinery for the manufacture of lace and other fabrics. (Patented by Richard Archibald Brooman.)
LAINE, ALEXANDER MC - -	2922	20th Nov. 1863	Construction of gun boats, gun vessels and rams.
LAING, JAMES - - -	1748	13th July 1863	Dyeing and printing. (Communicated by Nicholas Rave.)
LAIRD, ROBERT - - -	2584	21st Oct. 1863	Machinery for carding cotton and other fibrous materials.
LAIRE, GEORGES DE - - -	717	17th March 1863	Manufacture of brown colouring matters. (Partly communicated by Charles Girard.)
LAMB, ANDREW - - -	1146	7th May 1863	Marine engines.
LAMB, GEORGE - - -	596	3rd March 1863	Apparatus for recording the revolutions of the propelling shaft of a steam ship or vessel.
LAMB, JOHN - - -	1787	16th July 1863	Looms for weaving carpets.
LAMBERT, BENJAMIN - - -	1206	13th May 1863	Paper makers' rag or pulp engines.
LAMBERT, BENJAMIN - - -	1789	16th July 1863	Preparation of waste paper in order to its being again used in the manufacture of paper.
LAMBERT, JOHN - - -	1017	24th April 1863	Ball cocks.
LAMBERT, PIERRE EDOUARD -	767	23rd March 1863	Agricultural apparatus. (Patented by William Clark.)
LAMBERT, THOMAS - - -	203	22nd Jan. 1863	Apparatus for drawing off water or other fluids.
LAMING, RICHARD - - -	2971	26th Nov. 1863	Improvements in preparing materials useful in the purifying of gas from sulphuretted hydrogen, carbonic acid and ammonia, and in making ammoniacal compounds.
LANDON, JAMES - - -	11	1st Jan. 1863	Construction of boots, shoes and other coverings for the feet.
LANDRIN, TOUSSAINT - - -	2360	24th Sept. 1863	Horse collars. (Patented by Henri Adrien Bonneville.)
LANDRIN, TOUSSAINT - - -	2361	24th Sept. 1863	Joining leather. (Patented by Henri Adrien Bonneville.)
LANE, JAMES WAKEMAN -	434	17th Feb. 1863	Fastenings for studs, sleeve fasteners, solitaires, bracelets, brooches and other uses.
LANE, THOMAS - - -	2993	28th Nov. 1863	Chaff cutting machinery.
LANG, WALTER JOHN COLIN -	1263	20th May 1863	Manufacture of certain articles to be used for preserving life at sea and other purposes.
LANGE, DANIEL - - -	2480	9th Oct. 1863	Certain improvements in railway wrappers.
LANGE, EUGENE - - -	420	16th Feb. 1863	An improved cover or protection for steel and other metal springs, ribbands and hoops. (Patented by Richard Archibald Brooman.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LANGE, JEAN BAPTISTE [CHARLES.]	2082	21st Aug. 1863	An improved apparatus for indicating or registering the speed or distance travelled by all kinds of vehicles, which said apparatus is also applicable to engines, water-wheels and prime motors of any description.
LANGLOIS, LOUIS NAPOLÉON -	920	11th April 1863	Improvements in separating ores from their gangues and in apparatus for the same. (Patented by William Clark.)
LAPORTE, ETIENNE - -	941	14th April 1863	Lamps for burning light and heavy mineral and vegetable oils. (Patented by Richard Archibald Brooman.)
LAPPARENT, HENRI DE - -	348	7th Feb. 1863	Improvements in the application of gas for the preparation of wood work generally and iron ships, for their better preservation and reception of paint or other protecting coating, and for disinfecting ships, hospitals and other places. (Patented by William Clark.)
LAPTHORN, WILLIAM HENRY -	515	24th Feb. 1863	Reefing and furling ships' square sails.
LARK, JAMES - - - -	928	13th April 1863	Manufacture of artificial fuel and cement.
LARNED, JOSEPH GARNETT -	1388	3rd June 1863	Improvements in steam fire-engines. (Patented by Wellington Lee and John Gano Winter.)
LARSONNEAU, BASILE VICTOR	1078	29th April 1863	An improved system of permanent advertisement. (Patented by William Edward Gedge.)
LARSONNEAU, BASILE VICTOR	2663	28th Oct. 1863	An improved system of permanent advertisement. (Patented by William Edward Gedge.)
LASERVE, DÉSIRÉ SIVAL, called	143	15th Jan. 1863	Looms or machinery for the manufacture of lace and other fabrics. (Patented by Richard Archibald Brooman.)
LASERVE, LÉON SIVAL, called -	143	15th Jan. 1863	Looms or machinery for the manufacture of lace and other fabrics. (Patented by Richard Archibald Brooman.)
LATCHFORD, BENJAMIN - -	2271	16th Sept. 1863	An improved spur.
LATHAM, JOHN - - - -	2996	30th Nov. 1863	Improvements in the manufacture of door springs, part of which said improvements are applicable to the manufacture of weighing-machines, steel yards, scale beams and other articles of like nature.
LATHROP, LEBBEUS WISNER -	576	28th Feb. 1863	Sewing-machines. (Patented by George Haseltine.)
LATOUCHE - - - -	1773	15th July 1863	Figuring, ornamenting and colouring fulled and felted fabrics and articles. (Patented by Michael Henry.)
LAUREAU, LEONARD - -	1654	3rd July 1863	Treatment and preservation of skins of all kinds. (Patented by William Edward Newton.)
LAURENS, CHARLES PIERRE -	839	1st April 1863	Improvements in preventing fermentation in alcoholic and other liquids while drawing them from their containing vessels, and in apparatus for the same. (Patented by William Clark.)
LAURENT, JEAN MARIE - -	2417	2nd Oct. 1863	An improved pen holder and feeder. (Patented by William Edward Gedge.)
LAURIE, JOHN - - - -	159	19th Jan. 1863	Apparatus for churning milk and mixing liquid compounds.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LAURIN, PETER MC - -	2287	17th Sept. 1863	Improvements in drying paper, pasteboard and similar fabrics, and in the machinery, apparatus or means employed therein.
LAVACHERIE, LÉON - -	1227	15th May 1863	Manufacture of boots and shoes.
LAVANDIER, ATHANASE [CHARLES LE.	787	23rd March 1863	Agricultural apparatus. (Patented by William Clark.)
LAVATER, MANUEL LEOPOLD [JONAS.	1506	16th June 1863	Moulding or vulcanizing articles of india-rubber.
LAVATER, MANUEL LEOPOLD [JONAS.	1625	30th June 1863	Improvements in stoppers and lids or covers for jars, bottles and other vessels, also in closing and fastening other articles.
LAVATER, MANUEL LEOPOLD [JONAS.	2893	18th Nov. 1863	Improvements in the manufacture of tubes, rings and cords of india-rubber, and in covering telegraph wires.
LAVENANT, CAMILLE BA- [RONESS DE.	1646	2nd July 1863	Certain compositions for protecting metals and metallic articles from oxidation, and for coating slate, bricks, pottery and ceramic ware. (Patented by Richard Archibald Brooman.)
LAVENDER, FREDERICK - -	2488	10th Oct. 1863	Manufacture of hames.
LAVENDER, JOSEPH - -	2488	10th Oct. 1863	Manufacture of hames.
LAVENDER, ROBERT - -	1020	24th April 1863	A new compound to be used as a lubricator.
LAW, DAVID - - - -	357	9th Feb. 1863	Traction engines or common road locomotives.
LAW, JOHN WARREN - -	846	2nd April 1863	Improvements in making moulds for casting and in apparatus connected therewith.
LAW, WILLIAM - - - -	2702	31st Oct. 1863	Improvements in the construction of articles of furniture known as wardrobes, including improved arrangements for attaching doors to the same, such improvements in attaching doors being applicable to other articles of furniture.
LAWRENCE, BENJAMIN - -	524	25th Feb. 1863	Apparatus for regulating the flow of gas for purposes of illumination.
LAWRENCE, JOSEPH - -	2862	16th Nov. 1863	An improved mode of attaching door knobs to their spindles.
LAWRENCE, THOMAS - -	1210	14th May 1863	Certain improvements in machinery or apparatus used in the processes or operations of drying, dressing, brushing, waxing and finishing fabrics.
LAWSON, DANIEL - - - -	2807	11th Nov. 1863	Apparatus for steering ships and vessels.
LAWSON, JOHN - - - -	122	14th Jan. 1863	Apparatus for holding castings and other pieces whilst being planed or shaped.
LAWSON, ROBERT HENRY -	968	17th April 1863	Apparatus or means for obtaining motive-power.
LAWSON, ROBERT HENRY -	2547	17th Oct. 1863	Apparatus or means for obtaining motive-power.
LAWTON, JOHN - - - -	1130	6th May 1863	Certain improvements in apparatus for cleansing potatoes and in decorticating the same and other esculent roots.
LAY, JOHN LAIRD MC - -	955	16th April 1863	Improvements applicable to mariners' compasses.
LE BUTT, JOSIAH - - - -	504	24th Feb. 1863	Machinery for dressing grain.
LE GRAS, LOUIS NAPOLEON -	2404	1st Oct. 1863	Cooking stoves and apparatus.
LE LAVANDIER, ATHANASE [CHARLES.	787	23rd March 1863	Agricultural apparatus. (Patented by William Clark.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LE PATOUREL, JOHN PAUL [BAUGH.	2313	19th Sept. 1863	Breech-loading fire-arms.
LEA, CHARLES HENRY - -	651	9th March 1863	Improved apparatus for opening and closing the gates of railway crossings, which apparatus also acts simultaneously upon the signals.
LEACH, JAMES - - -	943	15th April 1863	An improved machine or apparatus for washing, squeezing, mangling and churning.
LEACH, JOHN - - -	778	25th March 1863	Certain improvements in machinery or apparatus for preparing and spinning cotton and other fibrous substances.
LEAK, ELIAS - - -	2450	7th Oct. 1863	Improved apparatus to be used in placing "glost" china and earthenware in ovens and kilns, for firing, burning or baking such ware.
LEAN, JOHN Mc - - -	1584	22nd June 1863	Improvements in treating oil from shale or other bituminous minerals and similar oils to obtain various products therefrom, and in apparatus therefor.
LEBLANC, DÉSIRÉ FRANÇOIS -	142	15th Jan. 1863	A dioptical metallic level indicator or liquid gauge. (Communicated by Ferdinand Philippe Edouard Carré.)
LEBOYER, GUSTAVE GILBERT	1573	22nd June 1863	Printing machinery. (Patented by William Edward Newton.)
LEE, HENRY CLAY - - -	1605	25th June 1863	Construction of sewing-machines. (Communicated by Richard Mott Wanzer.)
LEE, JAMES - - -	1005	22nd April 1863	Looms for weaving.
LEE, JAMES DENBY - -	2243	11th Sept. 1863	Looms for weaving.
LEE, JESSE - - -	427	17th Feb. 1863	Ploughs and harrows.
LEE, JESSE - - -	1176	9th May 1863	Agricultural implements.
LEE, THOMAS - - -	1393	4th June 1863	Construction of flour and meal mills.
LEE, THOMAS VINCENT - -	528	25th Feb. 1863	Improvements in machinery for digging, compressing and moulding peat or turf, and for retorts and kilns for drying peat or turf and making peat or turf charcoal, through the agency of hydro-caloric or superheated steam, and for collecting the products of distillation whilst charring the peat or turf.
LEE, WELLINGTON - -	1388	3rd June 1863	Improvements in steam fire-engines. (Communicated by Joseph Garnett Larned.)
LEEMING, JAMES - - -	811	28th March 1863	An improvement in carding-engines.
LEES, JAMES - - -	2559	20th Oct. 1863	Machinery or apparatus for opening, cleaning and mixing cotton or other fibrous materials.
LEES, JOHN - - -	2559	20th Oct. 1863	Machinery or apparatus for opening, cleaning and mixing cotton or other fibrous materials.
LEFEBVRE, GERMAIN FRAN- ÇOIS JOSEPH.	1682	7th July 1863	Improvements in lamps and in the wicks used in such lamps.
LEFEBVRE, GUSTAVE - -	1197	12th May 1863	Machinery for preparing, dressing and winding cotton, woollen, flax, silk and other warps. (Patented by Richard Archibald Brooman.)
LEFEBVRE, LOUIS - - -	2473	9th Oct. 1863	Vapour bath apparatus.
LEGENDRE, NARCISSE - -	1169	9th May 1863	Construction of scissors.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LEGER, JEAN FRANÇOIS FU- [ZELLIER.	3132	11th Dec. 1863	Manufacture of nuts. (Patented by Richard Archibald Brooman.)
LEGG, ROBERT - - -	3202	19th Dec. 1863	Improvements in the construction of shot proof iron or steel walls suitable for the sides of war ships, floating batteries or forts.
LEGG, THOMAS - - -	1725	10th July 1863	Construction of sewing-machines.
LEGG, WILLIAM - - -	2440	5th Oct. 1863	Improvements applicable to sewing-machines.
LEGGETT, ROBERT - - -	927	13th April 1863	Construction of machinery or apparatus for cutting chaff and other agricultural produce.
LEGRAS, ALEXANDRE - - -	1040	25th April 1863	Machinery or apparatus for making ices.
LEGRIS, ERNEST - - -	728	18th March 1863	A new or improved machine for thrashing out the seed of flax.
LEGROS, GUSTAV JOSEPH -	413	14th Feb. 1863	Improvements in wrought iron casements and in the means for fastening the same, which improvements are also partly applicable to the framework of glass doors, conservatories and similar structures. (Patented by John Henry Johnson.)
LEIGH, EVAN - - - -	1079	29th April 1863	Improvements in cotton gins and in the method of driving the same, part of which improvements is applicable to other purposes.
LEIGH, EVAN - - - -	2863	16th Nov. 1863	Method of driving and feeding cotton gins, and of conveying away the ginned cotton and seeds therefrom.
LEIGH, FREDERICK ALLEN -	1079	29th April 1863	Improvements in cotton gins and in the method of driving the same, part of which improvements is applicable to other purposes.
LEIGH, FREDERICK ALLEN -	2863	16th Nov. 1863	Method of driving and feeding cotton gins, and of conveying away the ginned cotton and seeds therefrom.
LEIGH, JOHN - - - -	44	6th Jan. 1863	Improvements in the treatment of gas produced by the distillation of coal, cannel, bituminous shale, boghead, mineral oils, petroleum or other combustible substances, and for the obtaining of certain products therefrom.
LEIGH, LEVI - - - -	1149	8th May 1863	Compound steam-engines. (Patented by Peter Joel Livsey.)
LEITENBERGER, FERDINAND -	1565	22nd June 1863	Improvements in arrow shaped projectiles and in guns for discharging the same. (Patented by William Snell.)
LELIOS, EVANGELI - - -	1660	3rd July 1863	Means of and apparatus for churning.
LEMAIRE, LOUIS AMÉDÉE -	3279	28th Dec. 1863	Slide valves. (Patented by William Clark.)
LEMOINE, JULES - - - -	1542	19th June 1863	Improvements in decorticating grain and seeds, and in the application of the products obtained by and materials used in decorticating. (Patented by Michael Henry.)
LENGELÉE, AUGUSTE CHARLES [JOSEPH.	3300	30th Dec. 1863	Improved toys.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LEOD, JAMES MC - - -	3142	12th Dec. 1863	Improvements in raising sunken vessels and other submerged dead weights, and in preventing the sinking of vessels in case of accident at sea, and in the apparatus employed therein. (Patented by John Henry Johnson.)
LEOD, JOHN MC - - -	133	15th Jan. 1863	Apparatus to be used in turkey-red dyeing.
LEPAINTEUR, EDMUND - -	2039	17th Aug. 1863	Processes and preparations employed in spinning wool. (Patented by Henri Adrien Bonneville.)
LEPOUTRE, FELIX - - -	1796	17th July 1863	A new mechanical sector applicable to all self-acting machinery used for spinning textile fabrics.
LEPREUX, LOUIS HENRY EM- [MANUEL.	89	10th Jan. 1863	Improved plates or slabs for preserving apartments from the effects of damp, and which are also applicable in the composition of plinths and foundations for walls. (Communicated by François Jaffary.)
LEPROVOST, PAUL - - -	1310	25th May 1863	Certain improvements in carriages and vehicles for railways and other roads.
LEQUIN, CHARLES LOUIS [EDOUARD.	2875	16th Nov. 1863	Improvements in the manufacture of salt, and in boilers to be fed by salt water. (Patented by Richard Archibald Brooman.)
LESCUYER, LUCIEN - - -	111	13th Jan. 1863	India-rubber overshoes or goloshes.
LESLEY, PETER - - -	2525	15th Oct. 1863	Manufacture of rails for railways. (Communicated by Thomas Shoenberger Blair.)
LESLIE, PERCY - - -	2409	1st Oct. 1863	Preserving the bottoms of ships or vessels and other surfaces from the prejudicial effects of marine animals and vegetables.
LÉTANG, EDME HENRY - -	1380	2nd June 1863	An improved ruling and printing machine to be used either combined or separately.
LETT, JAMES - - -	18	2nd Jan. 1863	Looms for weaving.
LEVALLOIS, HILIAIRE ANDRÉ -	888	8th April 1863	Apparatus for propelling and navigating small craft. (Patented by William Edward Gedge.)
LEVENHAGEN, THÉODORE DE	1722	10th July 1863	Improvements in the construction of soil pits and in the mode of emptying the same. (Patented by James John Shedlock.)
LEVER, ELLIS - - -	735	19th March 1863	An improved composition for the coating and preservation of canvas and other materials, to make them waterproof and non-inflammable.
LEVICK, FREDERICK - -	307	3rd Feb. 1863	Improvements in generating combustible gases and in the apparatus employed therefor.
LEWAL, GABRIEL - - -	2286	16th Sept. 1863	An improved method of and apparatus for consuming smoke and heating and warming public and other buildings, and for drying purposes generally.
LEWIS, GEORGE EDWARD -	2100	25th Aug. 1863	Breech-loading fire-arms.
LEWIS, JAMES - - -	405	14th Feb. 1863	Driving sewing-machines.
LEWIS, JAMES - - -	2955	24th Nov. 1863	Improvements in driving sewing-machines, which improvements are also applicable for driving other machinery.
LEWIS, JOHN - - -	1736	11th July 1863	Improvements in weaving "chenille" and in the machinery or apparatus connected therewith.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LEWIS, JOHN - - -	2854	14th Nov. 1863	Rudders.
LEWIS, JOSEPH - - -	2166	2nd Sept. 1863	Certain improvements in machinery or apparatus for preparing and drying clay, and also in machinery to be employed in the manufacture of bricks and tiles.
LEWIS, THOMAS GEORGE -	100	13th Jan. 1863	Apparatus applied to perambulators, invalid chairs and other carriages.
LIANCOURT, CALLISTUS AUGUSTUS COUNT DE GODDES DE.	1598	25th June 1863	Improvements in apparatus for the preservation of life from drowning.
LIDDLE, CATHERINE, or KATY	1948	7th Aug. 1863	An improved method of cooking an egg and an improved pan or apparatus for the same.
LIÉTOUT, ALFRED LEONORE -	230	26th Jan. 1863	Gymnastical apparatus.
LIGHTBOWN, ROGER - -	2082	15th Aug. 1863	Looms for weaving.
LIGHTFOOT, BENJAMIN HEAD	1466	12th June 1863	Currying and finishing of leather. (Patented by George Davies.)
LIGHTFOOT, JOHN - - -	151	17th Jan. 1863	Printing and dyeing textile fabrics and yarns.
LIGHTFOOT, JOHN - - -	285	31st Jan. 1863	Machinery or apparatus used in the process of distillation.
LIGHTFOOT, JOHN - - -	1505	16th June 1863	Fixing mordants in the processes of dyeing and printing textile fabrics or yarns.
LILLEY, GEORGE HENRY -	538	26th Feb. 1863	Improvements in apparatus for connecting and securing together planks of wood applicable to the building and caulking of ships and other vessels.
LILLIE, JOHN SCOTT - -	1985	11th Aug. 1863	An improved revolving battery.
LILLIE, JOSEPH - - -	2214	9th Sept. 1863	An improved composition or coating for the protection and preservation of surfaces of iron, wood and other materials.
LILLY, BENJAMIN - - -	1187	12th May 1863	Construction of "snap caps" or "nipple protectors" for fire-arms.
LILPOP, STANISLAUS - -	21	2nd Jan. 1863	Reaping machines. (Patented by Robert Charles Ransome.)
LINDEMANN, GUSTAV - -	2853	14th Nov. 1863	Machinery or apparatus for singeing woven fabrics.
LINDENBLITH, IGNATZ - -	3280	28th Dec. 1863	Improvements in the manufacture of purses, bags and other similar articles, and in fastenings for the same. (Patented by William Clark.)
LINDNER, EDWARD - - -	3275	28th Dec. 1863	Improvements in breech-loading fire-arms and ordnance, and in apparatus for loading the same.
LINDSAY, SIR COUTTS - -	189	21st Jan. 1863	Improvements in apparatus to be used on railways to indicate to the engine driver of a carriage train the length of time which has intervened since the passing of a previous train.
LINDSLEY, GEORGE - - -	3220	21st Dec. 1863	An improved method of feeding locomotive and other boilers, applicable also to the raising of water and other liquids.
LINTZ, CHARLES - - -	1227	15th May 1863	Manufacture of boots and shoes.
LISHMAN, MATTHEW HODGSON	2014	14th Aug. 1863	Machinery for punching and for marking plates in which holes are to be punched.
LITTLEBOY, RICHARD - -	2636	26th Oct. 1863	Manufacture of nose-bags.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LIVERMORE, BENJAMIN - -	2031	15th Aug. 1863	Improved apparatus for printing. (Patented by Alfred Vincent Newton.)
LIVESEY, JAMES - - -	2280	17th Sept. 1863	Permanent way of railways.
LIVESEY, JAMES - - -	2722	4th Nov. 1863	Improvements in the permanent way of railways and fastenings for the same.
LIVINGSTON, JOHN - - -	511	24th Feb. 1863	Improvements in throstle spinning and doubling frames, wholly or partly applicable to roving and slubbing frames.
LIVINGSTONE, WILLIAM - -	2653	27th Oct. 1863	An improved machine for punching, shearing and rivetting metals.
LIVINGSTONE, WILLIAM - -	3121	11th Dec. 1863	An improved feathering screw propeller with fixed blades.
LIVSEY, PETER JOEL - - -	1149	8th May 1863	Compound steam-engines. (Communicated by Levi Leigh.)
LLEWELLIN, JOHN - - -	2392	29th Sept. 1863	Water-closets.
LLEWELLIN, PETER - - -	2392	29th Sept. 1863	Water-closets.
LLOYD, EDWARD - - -	1648	2nd July 1863	An improved composition for waterproofing, softening and preserving all kinds of leather and articles made therefrom.
LLOYD, EDWARD - - -	2385	25th Sept. 1863	Rotary engines to be worked by water, steam, air and other motive-power.
LLOYD, NATHANIEL - - -	3259	24th Dec. 1863	Treating printed and dyed fabrics.
LLOYD, NICHOLAS PHILIP [COMINS.]	281	30th Jan. 1863	An improved atmospheric engine applicable to purposes to which steam, horse, wind and water power is applied.
LLOYD, NICHOLAS PHILIP [COMINS.]	989	21st April 1863	An improved atmospheric engine applicable to purposes to which steam, horse, wind and water power is employed.
LOCKE, EDWARD AUGUSTUS -	1385	3rd June 1863	Improved means of securing identifying labels or tags to bales of fibrous material. (Partly communicated by Henry Ware Goodrich.)
LOCKE, JESSE ALBERT - -	2697	31st Oct. 1863	Machinery employed in the manufacture of wool and hair felting. (Patented by Henry Bernoulli Barlow.)
LOCKE, WILLIAM - - -	2630	24th Oct. 1863	Improvements in the working and mining of coal, minerals and earthy matters, and in the machinery, apparatus and means to be employed therein.
LOCKWOOD, JOHN - - -	916	11th April 1863	Steam-boiler and other furnaces.
LOEBL, JOSEPH - - -	2182	3rd Sept. 1863	Fastening gloves.
LOEDER, WILLIAM - - -	1350	29th May 1863	Rails for railways. (Communicated by Gabriel Dümmler.)
LOEWENBERG, HENRY - - -	1771	15th July 1863	An improved process for making paper transparent and transferring designs. (Patented by William Clark.)
LOFTUS, THOMAS - - -	2042	17th Aug. 1863	Apparatus for attaching to steam-boilers and flues, for the consumption of smoke.
LOMAS, EDWARD HENRY -	678	12th March 1863	Improvements in the action of charger or measure for powder flasks, canisters or other vessels.
Longbottom, William - -	2040	17th Aug. 1863	An improved lubricator.
LORBERG, WILLIAM - - -	731	18th March 1863	Improvements in the treatment of rags and obtaining valuable chemical products from the animal fibre therein.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LORBERG, WILLIAM - -	2187	5th Sept. 1863	Manufacture of gas and other substances from tan and similar materials.
LORBERG, WILLIAM - -	2294	18th Sept. 1863	Treatment of rags and obtaining valuable chemical products from the animal fibre therein.
LORBERG, WILLIAM - -	2487	8th Oct. 1863	Manufacture of gas from tar.
LORD, EDWARD - - -	2026	15th Aug. 1863	Certain improvements in machinery for preparing, spinning and doubling cotton and other fibrous substances.
LORIOT, ERNEST - - -	2643	26th Oct. 1863	An improved pillow. (Patented by William Edward Gedge.)
LOSEE, SIMEON - - -	737	19th March 1863	Machinery for drying and cooling grain and seeds. (Patented by Henry Osburne Haughton.)
LOTT, JOHN CROWGEY - -	2205	8th Sept. 1863	Improved apparatus for turning over the leaves of music.
LOUIT, JEAN BAPTISTE EMILE	264	29th Jan. 1863	Improvements in the glasses termed chimneys used for gas or other lights.
LOUVEL, ALPHONSE - -	2926	20th Nov. 1863	Improvements in preserving grain, flour and other similar substances, and in the apparatus connected therewith. (Patented by Henri Adrien Bonneville.)
LOUVIE, BARTHELEMY - -	559	27th Feb. 1863	Improvements in pumping and forcing water and in apparatus for the same. (Patented by William Clark.)
LOUVRIER, CHARLES ALEX- [ANDRE.	1133	6th May 1863	Machinery or apparatus for forging and dressing horse-shoe and other nails. (Patented by George Davies.)
LOW, GEORGE - - - -	903	9th April 1863	Improved machinery for boring rocks and other hard substances.
LOWE, CHARLES - - - -	1936	6th Aug. 1863	Dyeing and printing.
LOWE, THOMAS - - - -	2376	28th Sept. 1863	An improved break for railway and other carriages.
LOWE, WILLIAM SCOWCROFT -	1526	18th June 1863	Self-acting mules for spinning cotton and other fibrous materials.
LOWRY, GEORGE - - - -	2133	29th Aug. 1863	Improvements in and applicable to cotton gins.
LOYSEL, EDWARD - - - -	148	16th Jan. 1863	Improved apparatus for preserving valuable property, documents and letters, in cases of shipwreck.
LUBLINSKI, ROBERT - - -	3022	2nd Dec. 1863	A new method of bending the reverse ends of partridge canes and bending partridge canes without roots.
LUCIUS, EUGEN - - - -	3063	5th Dec. 1863	Production and manufacture of certain yellow and orange colors. (Patented by James Alfred Wanklyn.)
LUCIUS, MEISTER - - - -	1972	10th Aug. 1863	An improved manufacture of blue and of violet colouring matter. (Patented by Alfred Vincent Newton.)
LÜDEKE, JOHANN ERNST [FRIEDRICH.	2028	15th Aug. 1863	Means of keeping cameras or other apparatus steady when suspended to balloons.
LÜDEKE, JOHANN ERNST [FRIEDRICH.	2413	2nd Oct. 1863	Obtaining motive-power.
LUDERS, THOMAS - - - -	1357	30th May 1863	Apparatus for the transmission of motive-power. (Patented by Edward Thomas Hughes.)

[Lue]

ALPHABETICAL INDEX OF PATENTEES

[Lyt]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
LUEBBERS, ERNEST HENRY -	2560	20th Oct. 1863	An improved treatment of textile substances to obtain a species of or substitute for cotton. (Communicated by Joseph Jaubert.)
LUMB, SAMUEL - - -	384	12th Feb. 1863	Machinery for tenoning, grooving, sawing and otherwise cutting wood.
LUMLEY, HENRY - - -	3013	1st Dec. 1863	Apparatus for steering.
LUNDGREN, JOHAN EPHRAIM	1170	9th May 1863	Manufacture of lamp black. (Patented by Richard Archibald Brooman.)
LUNDGREN, JOHAN EPHRAIM	1774	15th July 1863	Improved means of and apparatus for reducing charcoal and other friable substances to fine or impalpable powder, particularly applicable to the manufacture of a substitute for lamp black. (Patented by Richard Archibald Brooman.)
LUNDY, JOHN JAMES - -	164	19th Jan. 1863	Manufacture of metallic casks and vessels.
LUNDY, JOHN JAMES - -	2315	19th Sept. 1863	Extraction or manufacture of oils from vegetable substances.
LUNDY, JOHN JAMES - -	2418	2nd Oct. 1863	Manufacture of paper.
LUNEAU, MICHEL - - -	2734	4th Nov. 1863	Improvements in the manufacture of hat or cap frames.
LUNGLEY, CHARLES - -	204	22nd Jan. 1863	Means for facilitating the repairs of ships and other structures.
LUNGLEY, CHARLES - -	3036	2nd Dec. 1863	Construction of ships of war and other vessels.
LÜTHY, ROBERT - - -	87	10th Jan. 1863	Hydrostatic presses.
LUTWYCHE, ALFRED - -	682	13th March 1863	An improvement or improvements in metallic pens.
LUTWYCHE, CHARLES THOMAS	682	13th March 1863	An improvement or improvements in metallic pens.
LYMAN, AZEL STORRS - -	408	14th Feb. 1863	Improvements in the method of and apparatus for separating the fibres of straw, wood and other vegetable substances, and extracting the gummy and coloring matters therefrom, to render them fit for paper stock or for other purposes. (Patented by William Clark.)
LYMAN, JOSIAH - - -	1817	20th July 1863	Micrometer draughting scales.
LYON, HENRY - - -	15	2nd Jan. 1863	Improvements in the finish and mode of packing cigars, and in apparatus used for these purposes.
LYSTER, GEORGE FOSBERY -	590	3rd March 1863	Mooring buoys.
LYTTLE, WILLIAM ALEXANDER	290	31st Jan. 1863	Improvements connected with cigars and other tobacco smoking appliances.
LYTTLE, WILLIAM ALEXANDER	2850	14th Nov. 1863	Covers for umbrellas, parasols or sunshades.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
M.			
MABLEY, WILLIAM TUDOR -	323	5th Feb. 1863	Improvements in blowing organs and other such musical instruments, parts of which improvements are also applicable to obtaining motive-power for other purposes.
MACBURNIE, CHARLES -	3141	12th Dec. 1863	Improvements in the construction and mode of attaching of india-rubber and other composition soles to boots and shoes or to the uppers thereof. (Patented by John Henry Johnson.)
McCARTER, JOHN WALKER -	693	14th March 1863	Machinery for sawing or cutting wood.
McCLEAN, JOHN - - -	1564	22nd June 1863	Improvements in treating oil from shale or other bituminous minerals and similar oils, to obtain various products therefrom, and in apparatus therefor.
McCOLL, DUNCAN - - -	898	9th April 1863	Preventing the escape of fumes and matters from furnaces.
McCOMB, DAVID - - -	1390	3rd June 1863	Improvements in the construction of presses for forming bales of cotton and other materials, and in the construction of fastenings for and means for applying bands to such bales. (Patented by James Jennings McComb.)
McCOMB, JAMES JENNINGS -	1390	3rd June 1863	Improvements in the construction of presses for forming bales of cotton and other materials, and in the construction of fastenings for and means for applying bands to such bales. (Partly communicated by David McComb.)
McCONNELL, JAMES EDWARD	1186	11th May 1863	Chains for cables and other purposes.
McCONNELL, JAMES EDWARD	1191	12th May 1863	Treating worn out railway tyres.
McCONNELL, JAMES EDWARD	1203	13th May 1863	Manufacture of thick plates of wrought iron for armour plates and other purposes.
McCORMICK, CYRUS HALL -	2055	18th Aug. 1863	Reaping-machines.
McDONALD, JOHN - - -	1663	4th July 1863	Certain improvements in jacquard looms.
McDONALD, JOHN CAMERON	1661	4th July 1863	Manufacture and application of printing apparatus.
McENTEE, WILLIAM CHARLES	417	16th Feb. 1863	Locks.
McEWEN, JAMES - - -	2277	17th Sept. 1863	A new or improved combined coke oven and hot blast oven or apparatus.
MACFARLAND, GEORGE BRAD- [FORD.]	2542	17th Oct. 1863	Rotary engines. (Patented by William Clark.)
McGREGOR, PETER - - -	1013	23rd April 1863	Machinery for spinning and doubling.
McILWHAM, JAMES - - -	2233	10th Sept. 1863	Machinery or apparatus for winding yarns or thread.
McILWHAM, JAMES - - -	2838	14th Nov. 1863	Looms for weaving.
McINNES, JOHN - - -	2478	9th Oct. 1863	Improvements in sheathing for navigable vessels of iron or wood, which sheathing is also applicable to the covering of roofs, walls and other purposes.
McINTYRE, JOHN - - -	602	4th March 1863	An improved mode of applying and fastening metal sheathing to the bottoms of iron ships or vessels, and to iron for other uses.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MACKELLEN, SAMUEL DUN- [SEITH.	1131	6th May 1863	Certain improvements in watches and other time-keepers.
McKILLOP, HENRY FREDERICK	1438	9th June 1863	Compositions for coating or covering ships' bottoms.
McKILLOP, HENRY FREDERICK	2097	24th Aug. 1863	Cleansing ships' bottoms.
McLAINE, ALEXANDER - -	2922	20th Nov. 1863	Construction of gun boats, gun vessels and rams,
McLAURIN, PETER - - -	2287	17th Sept. 1863	Improvements in drying paper, paste board and similar fabrics, and in the machinery, apparatus or means employed therein.
McLAY, JOHN LAIRD - -	955	16th April 1863	Improvements applicable to mariners' compasses.
McLEOD, JAMES - - -	3142	12th Dec. 1863	Improvements in raising sunken vessels and other submerged dead weights, and in preventing the sinking of vessels in case of accident at sea, and in the apparatus employed therein. (Patented by John Henry Johnson.)
McLEOD, JOHN - - -	134	15th Jan. 1863	Apparatus to be used in turkey-red dyeing.
McNAMEE, RICHARD - -	3133	11th Dec 1863	Machinery for grounding or colouring wall paper and other fabrics. (Patented by Richard Archibald Brooman.)
MACARTHY, JOHN - - -	3200	19th Dec. 1863	Taps, cocks or faucets. (Communicated by John Broughton.)
MACAULAY, HENRY - -	1552	20th June 1863	Improvements in covers or appliances for the rims, borders or top edges of chamber utensils, applicable also to commodes and water-closets.
MACDONALD, GEORGE SAMUEL	1068	28th April 1863	Card-cases.
MACDONALD, WILLIAM STE- [VENSON.	973	18th April 1862	Apparatus for drying animal, vegetable and mineral substances.
MACE, CHARLES - - -	250	28th Jan. 1863	Steam-engines for propelling vessels and for other purposes.
MACFARLANE, GEORGE - -	3021	2nd Dec. 1863	A new and improved ink regulator and indicator.
MACFARLANE, THOMAS - -	126	14th Jan. 1863	Manufacture of chlorine and bleaching powder, carbonate of soda and soda ash, and sulphate of iron. (Patented by William Johnson.)
MACINTOSH, JOHN - -	356	9th Feb. 1863	Obtaining and applying motive-power.
MACINTOSH, JOHN - -	2716	3rd Nov. 1863	Taps and cocks for liquids or gases.
MACINTYRE, JAMES - -	875	7th April 1863	Manufacture of knobs and other articles in china and earthenware.
MACIVOR, ALEXANDER - -	533	25th Feb. 1863	Improvements in veneering or overlaying woods according to two methods, 1st, by means of steam exhaustion or steam pressure, or air exhaustion or air pressure, 2ndly, by the employment of electro-magnetism.
MACKAY, JAMES - - -	2401	1st Oct. 1863	Certain improvements in fire-arms, ordnance and projectiles.
MACKENZIE, JAMES - -	265	29th Jan. 1863	Shaping machines for curvilinear surfaces.
MACKEW, JAMES - - -	2891	18th Nov. 1863	Machinery for making looped fabrics.
MACKIE, ALEXANDER - -	1619	29th June 1863	An improved cork cutting machine. (Patented by George Davies.)
MACKINDER, HERBERT - -	480	21st Feb. 1863	Apparatus for separating potatoes into different sizes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MACKIRDY, LAUCHLAN - -	2855	14th Nov. 1863	Improvements in saturating, washing and cleansing charcoal and other matters, applicable also to the separation of syrups from sugar.
MACKLIN, WILLIAM - -	3104	9th Dec. 1863	Apparatus for reversing the motion of locomotives and other steam-engines.
MACLURE, ALEXANDER FORTAY	922	11th April 1863	Looms for weaving figured fabrics.
MACMILLAN, ALEXANDER -	1224	15th May 1863	Improvements in buttons and in fastening buttons to garments.
MACY, CHARLES - - -	331	6th Feb. 1863	Improvements in cannon and in projectiles to be used therewith. (Patented by Benjamin Franklin Bates.)
MADDERS, WILLIAM - -	1440	10th June 1863	A new and improved ornamental fabric.
MAGGS, JACOB - - -	2227	9th Sept. 1863	An improved construction of fountain pen.
MAGNY, FRANÇOIS - - -	879	7th April 1863	Improvements in reproducing or obtaining facsimiles of the veins, pores, knots and figures of wood, upon paper and other surfaces. (Patented by Richard Archibald Brooman.)
MAHON, ARTHUR IRWIN -	98	12th Jan. 1863	Improvements in screw and paddle propellers and a submarine propeller, also applicable to the raising and forcing of water or other fluids.
MAHOT, ALEXIS - - -	2696	30th Oct. 1863	Manufacture of soap. (Patented by John Henry Johnson.)
MAIN, JAMES ANDREW RAMSAY	2978	27th Nov. 1863	Improvements in the mode of connecting and sustaining the intersecting bars of iron fences, hurdles, gates and other analogous structures.
MAITLAND, CHARLES - -	2336	22nd Sept. 1863	Mashing apparatus.
MAJOLIER, LOUIS ANTOINE -	1567	22nd June 1863	Apparatus for carburetting gases. (Communicated by Henry Nordhoff.)
MAKINSON, ALEXANDER [WOODLANDS.]	635	6th March 1863	Locomotive and stationary engines.
MAKINSON, CHARLES - -	1413	8th June 1863	Certain improvements in machinery or apparatus for winding yarns or threads.
MALAM, WILLIAM - - -	2374	26th Sept. 1863	Improvements in apparatus for supplying gas to railway carriages and other moving structures, and in apparatus for manufacturing and holding gas in ships and other vessels, parts of such apparatus being also applicable for manufacturing and holding gas elsewhere.
MALAVERGNE, EUTROPE -	278	30th Jan. 1863	Improved apparatus for cleansing chimneys or other flues. (Patented by William Edward Gedge.)
MALLET, ROBERT TREFUSIS -	1225	15th May 1863	Improvements in the construction of piers, walls and other similar structures, and of landing stages, and in the connections therewith or attachments thereto.
MALLINSON, THOMAS - -	511	24th Feb. 1863	Improvements in throstle spinning and doubling frames, wholly or partly applicable to roving and slubbing frames.
MALLINSON, THOMAS - -	932	13th April 1863	Machinery for opening, cleaning, carding, and grinding or sharpening cards used in preparing cotton and other fibrous materials.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MALLINSON, THOMAS - -	3019	1st Dec. 1863	Improvements in certain self-acting mules for spinning and doubling cotton and other fibrous materials.
MALLISON, JAMES - - -	344	7th Feb. 1863	Certain improvements in the process and method of dyeing yarns.
MALLORY, JAMES EDWARD -	68	8th Jan. 1863	Improved machinery for breaking and cleaning flax, hemp and other fibre yielding plants. (Patented by Alexander Guild.)
MALLORY, JAMES EDWARD -	2958	24th Nov. 1863	Machinery for breaking and cleaning flax, hemp and other fibre yielding plants. (Patented by William Edward Newton.)
MALPAS, CHARLES - - -	471	21st Feb. 1863	Improvements in ovens or kilns for firing, burning or baking pottery, bricks, tiles and other earthen or ceramic articles.
MANCEAUX, FRANÇOIS JULES	474	21st Feb. 1863	Improvements in fire-arms or in transforming arms of large calibre into arms of smaller calibre.
MANIQUET, JEAN ANTOINE DE	785	25th March 1863	Improvements in the manufacture of cords, ropes and cables, and in machinery employed therein, applicable also to spinning, winding and twisting fibrous and filamentous substances. (Patented by Richard Archibald Brooman.)
MANNING, JAMES ALEXANDER	321	4th Feb. 1863	Improvements in the treatment of night soil and other waste products, and for the manufacture of manure therefrom.
MANTRAND, EDOUARD CARI -	648	9th March 1863	A new aromatic vinegar for removing stains from cloth and other materials. (Patented by Henri Adrien Bonneville.)
MANWARING, WILLIAM - -	1503	16th June 1863	Harvesting machines.
MARCET, ADOLPHE JEAN [VICTOR.]	1752	13th July 1863	Certain description of breech-loading fire-arms. (Patented by Henri Adrien Bonneville.)
MARCH, THOMAS CHARLES -	1471	12th June 1863	Improvements applicable to the ornamentation or decoration of articles of furniture, part of which improvements may also be applied for architectural ornamentation.
MARCHER, ROBERT - - -	1627	30th June 1863	Machinery or apparatus for moulding or shaping pottery ware. (Patented by John Henry Johnson.)
MARÉCHAL, CHARLES RAPHAEL	488	23rd Feb. 1863	Improvements in dressing millstones, in ornamenting or engraving on glass, pottery and other similar substances, and in materials employed therein. (Patented by Richard Archibald Brooman.)
MARECHAL, ETIENNE - - -	243	28th Jan. 1863	Improvements in preserving timber and in apparatus employed therein. (Patented by Henry Bernoulli Barlow.)
MARGUERITTE, LOUIS JOSEPH [FRÉDÉRIC.]	1089	30th April 1863	Manufacture of hydrocyanite of ammonia and of alkaline and earthy cyanides. (Patented by William Clark.)
MARIZ, LÉON - - - -	2002	13th Aug. 1863	Safely closing doors, windows and other apertures. (Patented by Charles Tessier.)
MARK, VAN DER BERTRAM -	165	19th Jan. 1863	A new and improved musical instrument of the harmonica class.
MARKALL, JOHN THURGOOD -	1267	20th May 1863	Machinery for working of wood.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MARKINDALE, RICHARD SHIERS	811	28th March 1863	An improvement in carding-engines.
MARKLAND, THOMAS - - -	452	19th Feb. 1863	Certain improvements in machinery or apparatus for warping or beaming yarns or threads.
MARLING, SAMUEL STEPHENS	1074	28th April 1863	Improved machinery for scouring, washing and cleansing woollen cloths and other fabrics.
MARRIOTT, AMBROSE - - -	948	15th April 1863	Improvements in boilers for heating buildings and in regulators for the same.
MARRIOTT, BENJAMIN - - -	2612	23rd Oct. 1863	An improvement in watches, consisting in the construction of cylindrical dead beat independent centre seconds watches.
MARRIOTT, BENJAMIN - - -	2827	13th Nov. 1863	Dead beat independent centre seconds watches.
MARRIS, JOHN - - -	1060	28th April 1863	An improved machine for breaking loaf sugar.
MARRIS, WILLIAM - - -	1060	28th April 1863	An improved machine for breaking loaf sugar.
MARRISON, ROBERT - - -	1535	19th June 1863	Breech-loading fire-arms.
MARRISON, ROBERT - - -	3185	17th Dec. 1863	Breech-loading fire-arms.
MARSDEN, WILLIAM - - -	460	20th Feb. 1863	Envelopes.
MARSDEN, WILLIAM - - -	461	20th Feb. 1863	Improvements in buttons and other similar fastenings, and in the modes of attaching or securing the same.
MARSDEN, WILLIAM - - -	3260	24th Dec. 1863	Improvements in or applicable to locomotive engines.
MARSH, THEOPHILUS - - -	2639	26th Oct. 1863	Projectiles.
MARSHALL, JAMES - - -	2661	28th Oct. 1863	Certain improvements in apparatus for applying adhesive substances to spindles employed in spinning cotton and other fibrous materials, and for the lubrication thereof.
MARSHALL, JOHN - - -	2648	27th Oct. 1863	Certain improvements in the expression of oil from oil yielding substances, and in the production of oil cake and other residuary matters.
MARSHALL, THOMAS - - -	2352	24th Sept. 1863	Metallic instruments to be used as substitutes for bristles in sewing, stitching, closing and otherwise joining boots and shoes and other leather work.
MARSHALL, THOMAS HENRY -	807	27th March 1863	Improvements in machinery and apparatus for preparing land for seed and for harrowing land.
MARSHALL, WILLIAM - - -	2352	24th Sept. 1863	Metallic instruments to be used as substitutes for bristles in sewing, stitching, closing and otherwise joining boots and shoes and other leather work.
MARSHALL, WILLIAM EBENE- ZER.	2630	24th Oct. 1863	Improvements in working and mining of coal, minerals and earthy matters, and in the machinery, apparatus and means to be employed therein.
MARSHALL, WILLIAM FIELDING	2103	26th Aug. 1863	Apparatus for spinning.
MARTIN, ALFRED JOSEPH -	2614	23rd Oct. 1863	An improved burner for burning petroleum, paraffin or other hydrocarbon oils, consuming the smoke without the use of a draught chimney.
MARTIN, CHARLES - - -	1652	3rd July 1863	Treatment and preparation of materials for the manufacture of paper.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MARTIN, CHARLES - - -	2788	10th Nov. 1863	Certain improvements in keyless watches. (Patented by John Conrad Habicht.)
MARTIN, GEORGE - - -	3012	1st Dec. 1863	Improvements in compounds or compositions for coating or covering iron or wooden ships and vessels, metallic sheathing, telegraph cables and other objects, to preserve them from decay, fouling or other destructive action.
MARTIN, HENRI REDA DE [SAINT.	3284	29th Dec. 1863	Apparatus for aerial locomotion.
MARTIN, HENRY - - -	1435	9th June 1863	Treating and preparing night soil and sewage with other materials as a manure.
MARTIN, LOUIS - - -	663	11th March 1863	Improvements in moderator lamps to adapt them to the burning of petroleum and other like mineral oils and hydro-carbons. (Patented by John Cassell.)
MARTIN, LOUIS - - -	1268	21st May 1863	Treatment of mineral oils and hydro-carbons. (Patented by John Cassell.)
MARTIN, LOUIS - - -	1305	23rd May 1863	Lamps for burning hydro-carbon oils. (Patented by George Smith.)
MARTIN, LOUIS EMILE CON- [STANT.	2087	22nd Aug. 1863	Apparatus for heating and purifying water.
MARTIN, LOUIS EMILE CON- [STANT.	2144	29th Aug. 1863	Apparatus for generating steam and for generating gases to be used for heating steam-boilers or for other purposes.
MARTIN, LOUIS EMILE CON- [STANT.	2822	12th Nov. 1863	Apparatus for generating steam.
MARTIN, WILLIAM - - -	769	24th March 1863	Lubricating horizontal shafting and bearings of all descriptions.
MARTINDALE, RALPH - - -	491	23rd Feb. 1863	Improvements in lamps and burners, and in apparatus employed for milling or ornamenting parts of lamps, which apparatus may also be applied to other similar uses.
MARTYN, RICHARD - - -	2482	9th Oct. 1863	An improved method of condensing and purifying the fumes and gases arising from the treatment of metals and metallic ores and substances.
MARULAZ, LOUIS FRANÇOIS [AUGUSTE BARON.	1624	30th June 1863	Manufacture of combs.
MARVILLE, LOUIS JOSEPH [HENRY.	316	4th Feb. 1863	A new kind of covering for the ears, made of india-rubber, gutta-percha or other materials.
MARWOOD, EDWARD - - -	2914	20th Nov. 1863	The application of a certain substance or material for covering rollers used in spinning and preparing cotton, wool and other fibrous substances to be spun.
MASCHWITZ, CHARLES - - -	1283	22nd May 1863	Improvements in stoppers or bungs for closing or stopping bottles, jars and other vessels, and the muzzles of rifles, and for other like purposes. (Communicated by Ferdinand Krauskopf.)
MASH, JAMES - - -	2794	10th Nov. 1863	Improvements applicable to safety valves and pressure or temperature gauges.
MASON, RICHARD - - -	3224	21st Dec. 1863	A holder or suspender for holding cotton and other reels, spools or balls, parts of which are also applicable for other useful purposes.
MASON, WILLIAM - - -	1508	16th June 1863	Apparatus for removing the bran or outer skin from wheat and other grain.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MASSAS, FRANÇOIS ANTOINE [EDMOND GUIRONNET DE.	962	16th April 1863	Improvements in smut machines and in machines for cleansing and peeling grain and seeds.
MASSAS, FRANÇOIS ANTOINE [EDMOND GUIRONNET DE.	2534	16th Oct. 1863	Improvements in smut machines and in machines for cleansing and peeling grain and seeds.
MASSÉ, MADAME JULIE ADOL- [PHINE.	1195	12th May 1863	Spring mattresses. (Patented by Richard Archibald Brooman.)
MASSEY, EDWIN HOPE - -	293	2nd Feb. 1863	Improved preparation or compositions for coating and colouring the walls, ceilings and other parts of buildings.
MASSINGHAM, WILLIAM -	969	17th April 1863	Apparatus for cooling liquids.
MASSON, ANTOINE - - -	58	7th Jan. 1863	Improved media for advertising. (Patented by William Clark.)
MASTERS, HENRY - - -	496	24th Feb. 1863	Spools, bobbins, rollers and similar articles.
MATHELIN, EDMÉ ERNEST -	556	27th Feb. 1863	A new method of and apparatus for boring into water and gas supply pipes, and fixing branch pipes thereon. (Patented by Richard Archibald Brooman.)
MATHELIN, PIERRE LUCIEN -	556	27th Feb. 1863	A new method of and apparatus for boring into water and gas supply pipes, and fixing branch pipes thereon. (Patented by Richard Archibald Brooman.)
MATHER, JAMES - - -	2479	9th Oct. 1863	Friction or glazing calenders.
MATHEVON, JACQUES - -	873	7th April 1863	A new composition for dressing and preparing silk, cotton and woollen tissues and fibres, and also mixtures of the same. (Patented by Henry Gilbee.)
MATHEW, JOHN - - -	3249	23rd Dec. 1863	Construction of batteries for ships, forts and other defences.
MATHEWS, SAMUEL - - -	2441	6th Oct. 1863	Breech-loading fire-arms.
MATHIEU, JULES OUARNIER -	1601	25th June 1863	Improvements in twisting machines, particularly applicable to the manufacture of strings, strands, ropes or cables.
MATTHEWS, BENJAMIN - -	3091	8th Dec. 1863	Machinery or apparatus for carding wool or other fibrous substances.
MATTISON, WILLIAM - - -	1188	12th May 1863	Grass mowing and reaping machines.
MAUCHAIN, ARMAND - - -	2038	17th Aug. 1863	Engraving. (Patented by Henri Adrien Bonneville.)
MAURAND, AMÉDÉE BARTHE- [LEMI DONAT.	826	31st March 1863	A translucent cylindric apparatus for bringing the former weights and measures into those of the present decimal system most easily and precisely, and vice versa
MAURER, JOHANN JACOB -	2872	16th Nov. 1863	Towing boats and other vessels.
MAURICE, JOSEPH - - -	1392	3rd June 1863	Improvements in rulers or instruments for ruling and in the mode of constructing them.
MAYOR, FREDERICK JOSEPH -	1807	18th July 1863	Horse shoes.
MAW, EDWIN - - - -	1792	16th July 1863	Improvements in the manufacture of pillars, posts, columns, mouldings, and buildings when corrugated metal is employed, and in machinery used in corrugating, moulding and shaping metal for such purpose.
MAW, JOHN HORNBY - - -	2732	4th Nov. 1863	Application of preservative coatings or compositions to the bottoms of ships and vessels.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MAWSON, WILLIAM - -	169	20th Jan. 1863	Improved hydraulic machinery for raising water in mines, wells and other places.
MAXFIELD, JOSEPH - -	567	28th Feb. 1863	Certain improvements in brewing and in apparatus employed therein.
MAYALL, THOMAS - -	3116	10th Dec. 1863	Manufacture of india-rubber and gutta-percha compounds. (Patented by George Tomlinson Bousfield.)
MAYALL, THOMAS - - -	3147	12th Dec. 1863	Washing-machinery. (Patented by George Tomlinson Bousfield.)
MAYALL, THOMAS - - -	3149	12th Dec. 1863	Fulling-machinery. (Patented by George Tomlinson Bousfield.)
MAYER, GUSTAVE - - -	1229	16th May 1863	Manufacture of elastic material. (Patented by Benjamin Browne.)
MAYER, JACOB - - -	2317	19th Sept. 1863	An improvement in the manufacture of cast steel tyres. (Patented by Thomas Edward Vickers.)
MAYER, RUDOLPH - - -	1274	21st May 1863	Improvements in breech-loading fire-arms and in cartridges connected with the same. (Patented by Edward Thomas Hughes.)
MAYER, RUDOLPH - - -	2883	18th Nov. 1863	Improvements in breech-loading fire-arms and in bayonets and cartridges connected with the same.
MAYNARD, ROBERT - -	518	25th Feb. 1863	Portable chaff cutting machines.
MAYNES, JOHN - - -	3264	24th Dec. 1863	Improvements in the manufacture of certain descriptions of artificial manure and in apparatus to be employed therein.
MAYRHOFER, ALBERT - -	1301	23rd May 1863	Improvements in indicating the position of trains upon railways and in apparatus employed therein. (Patented by Richard Archibald Broome.)
MEAD, JOHN - - - -	2470	8th Oct. 1863	Construction of various articles of furniture.
MEAKES, BENJAMIN - -	333	6th Feb. 1863	An improved lead and stone pencil sharpener.
MEAKIN, GEORGE FREDERICK [LEE.]	557	27th Feb. 1863	Improvements in the construction of underground railways or subways, and in carriages to be used or worked therein.
MEALING, EDWIN - - -	24	3rd Jan. 1863	Improvements in chairs and other seats or apparatus for sitting or reclining on, which improvements are also applicable to tables.
MEARS, JOSEPH WILLIAM -	177	21st Jan. 1863	A new and improved method for making sash frames and sashes, and suspending the same by atmospheric or gas pressure.
MEDWAY, JAMES - - -	2839	14th Nov. 1863	Improvements in the manufacture of starches by the introduction of coloring matters.
MÈGE, HYPOLITE - - -	1778	16th July 1863	Certain improvements in the mode of treating fatty bodies.
MÈGE, HYPOLITE - - -	2781	9th Nov. 1863	Certain improvements in the manufacture of soap.
MÈHU, AIMÉ - - - -	1484	13th June 1863	An improved helm for working the rudders of ships or vessels.
MEIN, ANDREW - - -	1586	23rd June 1863	Apparatus for generating steam.
MEIRAT, YENN - - -	1544	20th June 1863	Propelling vessels of every description and size by water power.
MEIRAT, YENN - - -	2543	17th Oct. 1863	Means of propelling vessels.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MEISEL, MORITZ - - -	1846	23rd July 1863	An improved apparatus for regulating the speed of trains on railways, and in assisting the locomotive engine and train in ascending and descending inclined planes. (Communicated by Carl Schouberszky.)
MEISEL, MORITZ - - -	2537	17th Oct. 1863	Apparatus for ascertaining the weight of the load supported by the springs of railway locomotives and carriages, for the purpose of regulating or equalizing such load. (Communicated by Ludwig Starck.)
MELLAND, GEORGE STEPHEN -	2773	7th Nov. 1863	Breech-loading fire-arms and ordnance. (Communicated by Jacob Snider, jr.)
MELLARD, JAMES - - -	1372	2nd June 1863	Double moulding or ridging ploughs.
MELLODEW, JAMES - - -	757	21st March 1863	Looms for weaving.
MELLODEW, THOMAS - - -	757	21st March 1863	Looms for weaving.
MELLOR, JAMES - - -	310	4th Feb. 1863	Apparatus to be used in distilling, subliming and drying.
MELLOR, MOSES - - -	2778	7th Nov. 1863	Machinery or apparatus for the manufacture of looped or knitted fabrics.
MELLOR, WILLIAM - - -	216	24th Jan. 1863	Steam hammers and other engines driven by steam.
MELOTTE, LOUIS - - -	1880	29th July 1863	An improved self-acting flushing apparatus. (Patented by Henri Adrien Bonneville.)
MELTON, HENRY - - -	2805	11th Nov. 1863	Shakos, military and other hats and caps.
MENDEL, SAM - - -	2387	29th Sept. 1863	Manufacture of woven fabrics applicable to covering telegraph wires.
MENNONS, MARC ANTOINE [FRANÇOIS.]	220	24th Jan. 1863	Machinery for punching and cutting metals. (Communicated by Nicolas De Telescheff.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	1721	10th July 1863	Mode of preserving and protecting the silvering of mirrors. (Communicated by Diodor Briansky.)
MENNONS, MARC ANTOINE [FRANÇOIS.]	2004	13th Aug. 1863	Construction of numbering machines. (Communicated by Wilhelm Hof and Thomas Ward.)
MERCIER, DIDIER NICOLAS -	812	28th March 1863	An improved axletree with linked levers for lifting.
MERCIER, FRANÇOIS JACQUES	1814	20th July 1863	Improvements applicable to inland navigation. (Patented by William Edward Gedge.)
MERCIER, ZACHARIE JOSEPH -	2278	17th Sept. 1863	An improved gas cock of elastic and continuous pressure.
MERLANCHON, ANTOINE -	1449	11th June 1863	Improvements in obtaining and applying motive-power and in apparatus for the same. (Patented by William Clark.)
MESSER, HENRY - - -	2806	11th Nov. 1863	Caloric or heated air engines. (Patented by Walter Davis Richards.)
MEYER, F. - - -	3238	22nd Dec. 1863	Improvements in the knives used for the cylinders and blocks of rag cutting or beating engines, the same arrangement of knives being also applicable to the crushing or beating of other substances. (Patented by William Edward Gedge.)
MEYER, LOUIS - - -	2241	11th Sept. 1863	Improved means of and apparatus for employing vapours, gases and the heat derived from combustible matters.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MEYN, JOHANN CHRISTIAN [CARSTEN.]	2444	6th Oct. 1863	Steam-boilers and furnaces. (Patented by Richard Archibald Brooman.)
MEYNARD, CHARLES JOSEPH [LOUIS.]	3096	8th Dec. 1863	Apparatus for regulating the passage of aëri- form and other fluids. (Patented by Michael Henry.)
MICHAELIS, JAMES - -	2565	20th Oct. 1863	Improvements in the manufacture of purses, pocket-books and wallets, and in the con- struction of double action locks for the same and other similar purposes.
MICHEL, ANTOINE FRANÇOIS -	2607	22nd Oct. 1863	A new material for tanning. (Patented by Richard Archibald Brooman.)
MICOLON, HENRI - - -	1302	23rd May 1863	Improvements in the manufacture of bells and of resisting and non-cutting tools. (Patented by Richard Archibald Brooman.)
MICOLON, HENRI - - -	2086	22nd Aug. 1863	A new metallic alloy. (Patented by Richard Archibald Brooman.)
MIDDLETON, DAVID - -	1311	25th May 1863	Posts or pillars for fences and gates. (Patented by Edmund Hunt.)
MIDDLETON, SAMUEL - -	1534	19th June 1863	Improvements in the manufacture of iron or other metal shoes, and in the method of securing the same to the hoofs of horses and other animals, without nails.
MILES, JOHN - - - -	2153	31st Aug. 1863	Traps for catching rats and mice, rabbits and other animals and birds.
MILLBOURNE, SAMUEL - -	2189	5th Sept. 1863	Improvements in the preparation of materials for the manufacture of paper, and in the construction of machinery employed for such purposes.
MILLER, JAMES - - -	350	7th Feb. 1863	Securing the corks, stoppers or lids of bot- tles, jars and other similar vessels.
MILLER, JOHN - - -	624	5th March 1863	Improvements in horticultural buildings and other glazed structures, part of which im- provements is also applicable to ventilating other buildings.
MILLER, THOMAS NOTTAGE -	718	17th March 1863	Heating horticultural buildings.
MILLER, WILLIAM - - -	1414	8th June 1863	An improved mode of constructing ships, vessels or boats, and of apportioning their freight to that construction, so as to pre- vent their sinking or being destroyed by fire.
MILLER, WILLIAM - - -	1649	2nd July 1863	An improved mode of evaporating through the combined agencies of heat and centri- fugal force, and the machinery employed therein, more particularly applicable to saccharine solutions.
MILLER, WILLIAM - - -	1980	8th Aug. 1863	Improvements in the manufacture of oakum and in apparatus therefor.
MILLHOLLAND, JAMES - -	2621	23rd Oct. 1863	An improved mode of manufacturing railway wheels. (Patented by Alfred Vincent Newton.)
MILLIN, GEORGE FRANCIS -	2257	14th Sept. 1863	Improved arrangements for facilitating the quick detachment of horses or draught animals from carriages or vehicles, and for the application of break power with the view to prevent accidents.
MILLOCHAU, ADOLPH - -	1546	20th June 1863	An improved oil more especially designed for mixing paints and colors, and new mode of manufacturing the same. (Patented by George Haseltine.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MILLOCHAU, ADOLPH - -	3207	19th Dec. 1863	An improved oil more especially designed for mixing paints and colors, and a new mode of manufacturing the same. (Patented by George Haseltine.)
MILLS, DAVID - - -	2583	20th Oct. 1863	An improvement or improvements in the manufacture of moulds for casting studs for chains.
MILLS, FREDERICK - -	2197	7th Sept. 1863	Machinery for preparing and spinning cotton and other fibrous substances.
MILLS, JOHN - - -	1515	17th June 1863	Square rigging of vessels.
MILNER, JOHN - - -	208	23rd Jan. 1863	Steam-engines.
MILNER, THOMAS HUGHES -	1472	12th June 1863	Thrashing machines. (Communicated by William Roberts.)
MILTON, JAMES - - -	2519	14th Oct. 1863	Looms for weaving.
MITCHEL, WILLIAM HASLETT	889	8th April 1863	An improved construction of barometer.
MITCHELL, EDWARD - -	1090	30th April 1863	Reaping and mowing machines.
MITCHELL, GEORGE - -	1067	28th April 1863	Apparatus for preserving property in case of shipwreck. (Patented by John Henry Johnson.)
MITCHELL, JAMES - - -	841	1st April 1863	An improved process for coating iron. (Patented by William Mitchell.)
MITCHELL, JAMES - - -	2600	22nd Oct. 1863	Sinking, quarrying and excavating in the earth.
MITCHELL, WILLIAM - -	841	1st April 1863	An improved process for coating iron. (Communicated by James Mitchell.)
MOEGLER, MARTIN - -	147	16th Jan. 1863	Machinery for printing several colours in succession on the same surface.
MOINEAU, ISIDORE ALEXANDRE	2403	1st Oct. 1863	Railway and other breaks. (Patented by Henri Adrien Bonneville.)
MOISON, FRANÇOIS THÉOPHILE	486	23rd Feb. 1863	Process of cleaning organic matter. (Patented by Edward Thomas Hughes.)
MONCKTON, EDWARD HENRY [CRADOCK.	1082	29th April 1863	Improvements in apparatus for withdrawing milk from cows and other mammiferæ, and for conducting it when withdrawn to appropriate receivers. (Partly communicated by Thomas Barland.)
MONCKTON, EDWARD HENRY [CRADOCK.	2549	17th Oct. 1863	Improvements in the means of uniting or joining plates or sheets of metal, which invention is applicable to the construction of boilers, tubes and other useful purposes.
MOND, LUDWIG - - -	2203	8th Sept. 1863	Obtaining sulphur and sulphurous acid from "alkali waste."
MONDON, MAURICE - -	1859	25th July 1863	Manufacture of gun barrels. (Patented by Frederick Tolhausen.)
MONNET, ANTOINE - -	36	5th Jan. 1863	Twisting and throwing silk and other fibres.
MONSALLIÉ, JEAN JOSEPH -	1049	27th April 1863	Improvements in twyers or blast pipes and in apparatus connected therewith. (Patented by William Edward Gedge.)
MONSON, CHARLES - -	781	25th March 1863	An improved gravitation engine.
MONTAILLÉ, GEORGES - -	1120	5th May 1863	A new fabric suitable for trimmings. (Patented by Richard Archibald Brooman.)
MONTETH, ROBERT - -	70	8th Jan. 1863	Manufacture of dyes from aniline and its analogues. (Communicated by George Auguste Jules Deleaux.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MONTEITH, ROBERT - -	660	11th March 1863	Making dyes from aniline and its analogues. (Communicated by Georges Auguste Jules Delvaux.)
MONTEITH, ROBERT THOMSON	70	8th Jan. 1863	Manufacture of dyes from aniline and its analogues. (Communicated by Georges Auguste Jules Delvaux.)
MONTEITH, ROBERT THOMSON	660	11th March 1863	Making dyes from aniline and its analogues. (Communicated by Georges Auguste Jules Delvaux.)
MONTLEART, AGATHA - -	1788	16th July 1863	An improved mode of attaching hooks to furniture or fabrics for suspending dresses or parts of dresses, fabrics, curtains and other articles of upholstery or apparel.
MOODY, EDWARD TOMS - -	2191	5th Sept. 1863	Improvements in the generation and production of motive-power to be applied generally, and in its special application to the propulsion of vessels.
MOODY, THOMAS - - -	2191	5th Sept. 1863	Improvements in the generation and production of motive-power to be applied generally, and in its special application to the propulsion of vessels.
MOOR, DAVID - - -	1220	15th May 1863	Generating heat and motive-power.
MOORE, SIEGMUND - -	2088	22nd Aug. 1863	Means of and apparatus for electro-plating, said apparatus being also applicable to medical purposes.
MOORE, THOMAS - - -	1069	28th April 1863	Improved apparatus for laying down, protecting and controlling submarine cables for telegraphing from vessels moored off a coast to the shore.
MOORE, THOMAS - - -	1548	20th June 1863	Certain improvements in the construction of reels covered with silk or other suitable material, used as machines for the purpose of dressing flour.
MOREL, AUGUSTE - - -	732	18th March 1863	Apparatus for generating carbonic acid.
MOREL, AUGUSTIN - - -	1587	19th June 1863	Machinery for combing wool and other fibrous material.
MOREL, AUGUSTIN - - -	1538	19th June 1863	Traction engines.
MOREL, FRANÇOIS - - -	2325	21st Sept. 1863	Burners for burning all mineral oils. (Patented by François Alfred Châtel.)
MOREL, FRANÇOIS PHILLIPE -	3300	30th Dec. 1863	Improved toys.
MORELAND, RICHARD, Jr. -	698	14th March 1863	Improvements in apparatus for making extracts of hops and for selecting or separating the seeds and pollen from hops.
MORELAND, WILLIAM HARRI- [SON.	81	9th Jan. 1863	Winding, warping, beaming or dressing machines.
MOREWOOD, EDMUND - -	123	14th Jan. 1863	Improvements in the manufacture of coated metallic sheets or plates and pieces, and in apparatus to be used therein.
MOREWOOD, EDMUND - -	1958	7th Aug. 1863	Coating metals.
MORGAN, GEORGE - - -	2507	13th Oct. 1863	An improved "sample" bag for postal and other purposes.
MORGAN, JOHN - - -	412	14th Feb. 1863	Improvements in embalming and preserving from decay human bodies and bodies of other animals, also pickling, curing and flavouring animal bodies.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MORGAN, THOMAS - - - -	1855	25th July 1863	An apparatus for collecting fruit from trees, without injury.
MORGAN, THOMAS VAUGHAN	3107	9th Dec. 1863	Improvements in the treatment and purification of plumbago for the manufacture of crucibles and other fireproof articles, and in apparatus employed therein.
MORGAN, WILLIAM MILLING- [TON.	802	27th March 1863	Improvements in coating metals and in machinery and apparatus employed in coating metals.
MORIN, PAUL - - - -	1951	7th Aug. 1863	An improvement in the manufacture of shuttles. (Patented by Alfred Vincent Newton.)
MORLEY, CORNELIUS THOMAS	2562	20th Oct. 1863	Causing a more complete combustion of gas in using it for lighting purposes.
MORLEY, FRANCIS WILLIAM -	205	22nd Jan. 1863	Improvements in boilers for steam-engines and in valves to be used therewith.
MORRELL, THOMAS HENRY -	606	4th March 1863	A new or improved method of purifying the noxious vapours or gases given off from night soil or other similar substances during the heating, drying or evaporating of such substances.
MORRIS, JOHN - - - -	631	5th March 1863	An improvement or improvements in refrigerators and other like articles.
MORRIS, SAMUEL - - - -	393	13th Feb. 1863	Machines for spinning and doubling.
MORRISON, CONSIDER HARVEY	1425	8th June 1863	Nozzles for hose and water discharge pipes. (Patented by William Edward Newton.)
MORTIMER, JAMES - - - -	1740	13th July 1863	Construction and arrangement of dwelling houses in combination with the means employed for ventilating the same.
MORTON, ALEXANDER - - -	381	12th Feb. 1863	Lawn mowing machines.
MORTON, ALEXANDER - - -	744	20th March 1863	Certain apparatus for injecting and ejecting fluids.
MORTON, ALEXANDER - - -	2775	7th Nov. 1863	Certain apparatus for injecting and ejecting fluids.
MORTON, JOHN SANDERSON -	951	15th April 1863	Locks.
MOSHEIMER, JOSEPH - - -	167	20th Jan. 1863	Machinery for crushing and grinding quartz and other substances.
MOSHEIMER, JOSEPH - - -	884	8th April 1863	Certain improvements in machinery or apparatus for crushing, grinding and dressing metallic ores, quartz and other similar substances.
MOSMAN, EDWARD PAYSON -	1358	30th May 1863	Obtaining and applying motive-power.
MOSS, EDMUND - - - -	441	18th Feb. 1863	Portable and stationary crabs or cranes.
MOSSELMAN, ALFRED FRANÇOIS	1362	30th May 1863	Manufacture of manure. (Patented by William Clark.)
MOTAY, CYPRIEN MARIE [TESSIÉ DU.	488	23rd Feb. 1863	Improvements in dressing millstones, in ornamenting or engraving on glass, pottery and other similar substances, and in materials employed therein. (Patented by Richard Archibald Brooman.)
MOULINE, EUGENE - - -	2462	8th Oct. 1863	Improvements in propelling ships and in the apparatus employed therein. (Patented by John Henry Johnson.)
MOULTON, STEPHEN - - -	958	16th April 1863	Apparatus or means for lessening the recoil of cannon.
MOUNTFORD, GEORGE - - -	2504	12th Oct. 1863	An improved construction of cotton gin.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MOUREN, JOSEPH - - -	1027	24th April 1863	A filtering apparatus for treating by pressure oils, syrups and all sorts of liquids susceptible of filtering. (Patented by John Henry Johnson.)
MOUVET, JULES - - -	637	6th March 1863	Steam-engines. (Patented by William Edward Gedge.)
MUAUX, ERNEST - - -	223	24th Jan. 1863	Manufacture of anvils and other metal articles requiring hard surfaces. (Patented by Richard Archibald Brooman.)
MUCKART, JOHN - - -	2753	6th Nov. 1863	Preserving certain vegetable substances.
MUIR, MATTHEW ANDREW -	2233	10th Sept. 1863	Machinery or apparatus for winding yarns or thread.
MUIR, MATTHEW ANDREW -	2638	14th Nov. 1863	Looms for weaving.
MUIR, WILLIAM - - -	1307	25th May 1863	Machinery for cutting sugar and for assorting the lumps when cut.
MULET, LOUIS ALEXANDRE -	2127	28th Aug. 1863	An improved method of shoeing horses and covering the feet or hoofs of other domestic animals with hardened india-rubber, gutta-percha and other improved similar materials.
MULHOLLAND, FREDERICK [GEORGE.]	1950	7th Aug. 1863	Improvements in pipe castings for gas, water or sanitary and other general purposes, and the introduction of an elastic chemical compound to form expansive joints thereto, for prevention of leakage.
MULHOLLAND, FREDERICK [GEORGE.]	2386	29th Sept. 1863	Improvements in the mode of manufacturing submarine telegraph cables, in apparatus connected therewith and in the method or principle of laying same, and in the preparation of the several compounds described for electric insulation and other purposes.
MULLER, ADRIEN - - -	783	25th March 1863	Improvements in the manufacture of zinc and in the apparatus employed therein. (Patented by John Henry Johnson.)
MULLER, ADRIEN - - -	1115	5th May 1863	Improvements in the manufacture of wrought iron and steel, and in the apparatus to be employed therein. (Patented by John Henry Johnson.)
MULLER, JEAN JAQUES - -	117	14th Jan. 1863	An improved process for manufacturing colours for dyeing and printing. (Patented by Jules Albert Schlumberger.)
MÜLLER, JEAN JAQUES - -	395	13th Feb. 1863	Improvements in treating coal tar dead oils and for producing phenic or carbolic acid. (Patented by Jules Albert Schlumberger.)
MULLEY, WILLIAM ROBINSON	665	11th March 1863	Sheathing iron ships, caissons and other like structures.
MUNN, JOHN BENTLY - - -	40	6th Jan. 1863	Automatic walking dolls and other figures. (Patented by Joseph Alvin Munn and Jonathan Darwin Cobb.)
MUNN, JOSEPH ALVIN - - -	40	6th Jan. 1863	Automatic walking dolls and other figures. (Communicated by John Bently Munn.)
MUNRO, JAMES - - -	1322	26th May 1863	Improvements in apparatus for boring, mining and excavating or cutting, in motive-power engines, and in pressure gauges.
MUNRO, JOHN - - -	1917	3rd Aug. 1863	Apparatus for producing optical illusions.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
MUNTZ, EUGENE GUSTAVUS -	259	28th Jan. 1863	Securing axles and axle-boxes.
MUNTZ, WILLIAM HENRY -	18	2nd Jan. 1863	An improved method of attaching sheathing to iron or other vessels.
MURDOCH, GEORGE - -	1053	3rd July 1863	Breech-loading ordnance and gun carriages.
MURDOCH, GEORGE - -	1806	18th July 1863	Construction of steam and vacuum gauges.
MURRAY, BARNABY ANGELO -	2810	12th Nov. 1863	Machinery for doubling, twisting and winding silk and other fibrous substances.
MURRAY, JOHN - - -	1434	9th June 1863	Clips or holders for inserting and fixing photographic pictures in albums.
MURRAY, JOHN - - -	1575	23rd June 1863	Machinery for making chains or chain cables and rings.
MURRELL, CHARLES - -	136	15th Jan. 1863	Breech-loading fire-arms.
MURRELL, OWEN - - -	577	2nd March 1863	Improved arrangements for generating steam in steam-boilers and other vessels, and for heating the liquid contents thereof.
MUSGRAVE, JOSEPH - -	816	30th March 1863	Construction of steam-boilers.
MUSHET, ROBERT - - -	646	9th March 1863	An improvement in the manufacture or treatment of pig or cast iron.
MUSHET, ROBERT - - -	788	26th March 1863	An improvement or improvements in treating steel and iron prepared by the pneumatic process.
MUSHET, ROBERT - - -	818	30th March 1863	An improvement or improvements in moulds to be used for casting steel or homogeneous iron.
MUSHET, ROBERT - - -	1602	25th June 1863	Manufacture of iron and steel.
MUSHET, ROBERT - - -	1613	26th June 1863	Manufacture of iron and steel.
MUSHET, ROBERT - - -	1987	12th Aug. 1863	An improvement or improvements in the manufacture of cast steel.
MUSTON, JULES AUGUSTE LE- [QUEUX.	3153	14th Dec. 1863	Calendering-machines. (Patented by William Spence.)
MYERS, EDWARD - - -	1592	24th June 1863	Wet gas meters.
MYERS, EDWARD - - -	1691	8th July 1863	An improved method of propelling and steering ships.
MYERS, EDWARD - - -	1975	11th Aug. 1863	An improved rotary pump.
MYERS, EDWARD - - -	3180	16th Dec. 1863	Construction of rotary pumps.
MYERS, GEORGE - - -	701	16th March 1863	Apparatus for lowering and disengaging boats from vessels.
MYERS, GEORGE - - -	2228	9th Sept. 1863	Apparatus for lowering and disengaging boats from vessels.
MYERS, HENRY - - -	1108	2nd May 1863	A new apparatus for indicating appointments or fixed engagements.
MYERS, JOHN WILLIAM -	1445	10th June 1863	Apparatus for obtaining artificial light from volatile liquids or fluids.
MYERS, MICHAEL - - -	931	13th April 1863	Construction of trunks, portmanteaus and boxes.
MYLREA, DANIEL - - -	917	11th April 1863	Fire-bars or furnace grids.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
N.			
NADAL, JEAN - - -	269	29th Jan. 1863	Fountains.
NADAL, JEAN - - -	2975	26th Nov. 1863	Apparatus for raising and forcing fluids.
NADEN, THOMAS - - -	2216	9th Sept. 1863	Raising the covers or lids of hot water jugs, tea pots, coffee pots and other vessels.
NALDER, WILLIAM - - -	424	16th Feb. 1863	Improvements in rotatory screens and in the machinery or apparatus employed in the manufacture of such screens.
NALL, WILLIAM - - -	2670	28th Oct. 1863	Ornamenting glass and sheet gelatine.
NAMEE, RICHARD MC - - -	3133	11th Dec. 1863	Machinery for grounding or colouring wall paper and other fabrics. (Patented by Richard Archibald Brooman.)
NASH, JOHN - - -	2681	30th Oct. 1863	An improved mattress for beds.
NASMITH, JOHN - - -	933	14th April 1863	Machinery for carding cotton and other fibrous substances.
NAUDAIN, ANDREW - - -	173	20th Jan. 1863	Looms for weaving textile fabrics. (Patented by William Clark.)
NAYLOR, DAVID - - -	3291	29th Dec. 1863	Looms.
NAYLOR, ISAAC - - -	1266	20th May 1863	Paper spools or tubes used in spinning and doubling machines.
NAYLOR, ISAAC - - -	2860	14th Nov. 1863	Paper spools or tubes used in spinning and doubling machines.
NAYLOR, ROBERT - - -	722	18th March 1863	Organs, harmoniums and pianofortes.
NAYLOR, ROBERT - - -	2291	18th Sept. 1863	Improvements in increasing, diminishing or otherwise regulating the power and tone of organs, harmoniums, pianofortes, or other instruments with similar keys or key boards.
NAYLOR, WILLIAM - - -	1523	17th June 1863	Apparatus for compressing, holding and regulating the pressure of gas.
NAYLOR, WILLIAM - - -	1830	21st July 1863	Improvements in safety valves and in apparatus connected therewith.
NEALE, JOHN - - -	53	7th Jan. 1863	Manufacture of capsules. (Communicated by Emile Barrault.)
NEEDHAM, JAMES - - -	380	12th Feb. 1863	Certain improvements in self-acting mules for spinning.
NEEDHAM, RICHARD - - -	2667	28th Oct. 1863	Improved equilibrium valves for steam-engines and other purposes.
NEEDHAM, WILLIAM - - -	1347	28th May 1863	Improvements in expressing liquid and moisture from substances, and in separating the liquid from the solid portions thereof, applicable also to the filtration of liquids.
NEGRO, GUISEPPE - - -	2105	26th Aug. 1863	Manufacture of soap. (Patented by Joshua Taylor.)
NEILL, PATRICK BENIGNUS O'	2655	27th Oct. 1863	An improved salinometer which is applicable also as a hydrometer and for other similar or analogous purposes.
NEILL, WILLIAM - - -	1510	16th June 1863	Steam-engines.
NEILSON, WALTER MONTGO- [MERIE.	2684	30th Oct. 1863	Taps, cocks or valves. (Communicated by Henri Jerimie Cristen.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEILSON, WALTER MONTGO- [MERIE.	2759	6th Nov. 1863	Axle-boxes. (Communicated by Eugene Thétard.)
NERINY, EMMANUEL - -	3197	18th Dec. 1863	Letter boxes. (Patented by Henri Adrien Bonneville.)
NETTO, JOHN D'ATOUQUIA DE [FRANCA.	1751	13th July 1863	Improvements in fishing and in the apparatus or means to be employed therein. (Patented by Pierre Charles Alexandre Iodocius.)
NEUENSCHWANDER, JEAN -	2338	22nd Sept. 1863	Certain compositions for preserving cheese. (Patented by Richard Archibald Brooman.)
NEVIN, DAVID - - -	39	5th Jan. 1863	Machinery for clearing and separating the woody parts from the fibrous portion of flax, hemp or other like material.
NEWALL, ROBERT STIRLING -	1992	12th Aug. 1863	An improved mode of and apparatus for drying chemical compounds and other substances.
NEWALL, ROBERT STIRLING -	1995	12th Aug. 1863	Apparatus for serving ropes for ships' rigging and other purposes.
NEWCOMEN, CHARLES EDWARD	141 0	8th June 1863	Treatment of peat and other substances containing moisture.
NEWHOUSE, JAMES - - -	1293	23rd May 1863	Lap machines for preparing cotton and other fibrous substances.
NEWHOUSE, JAMES - - -	1430	9th June 1863	Certain improvements in machinery for grinding card teeth.
NEWMAN, JAMES - - -	1026	24th April 1863	Manufacture of buttons.
NEWNAM, JAMES - - -	1516	17th June 1863	Improved means of and apparatus for boiling in vacuo at a low temperature.
NEWTON, ALFRED VINCENT -	643	6th March 1863	An improved construction of elastic carriage wheel. (Communicated by Seth Woodbury.)
NEWTON, ALFRED VINCENT -	862	4th April 1863	An improved construction of pressure gauge. (Communicated by Philip Justice.)
NEWTON, ALFRED VINCENT -	881	7th April 1863	Improvements in projectiles for ordnance and in fuses therefor. (Communicated by Isaac Pettingill Tice.)
NEWTON, ALFRED VINCENT -	902	9th April 1863	An improved construction of offensive weapon. (Communicated by James Cameron Campbell.)
NEWTON, ALFRED VINCENT -	904	9th April 1863	An improvement in stirrups and in the mode of attaching the same to saddles. (Communicated by Jacques Eugene Armen-gaud.)
NEWTON, ALFRED VINCENT -	952	15th April 1863	An improved construction of blowing apparatus. (Communicated by Joseph Perrigault.)
NEWTON, ALFRED VINCENT -	1043	25th April 1863	Breech-loading fire-arms. (Communicated by Louis Therasson.)
NEWTON, ALFRED VINCENT -	1137	6th May 1863	Sewing-machines. (Communicated by James Alford House and Henry Alonzo House.)
NEWTON, ALFRED VINCENT -	1369	1st June 1863	An improved construction of marline spike. (Communicated by Albin Warth.)
NEWTON, ALFRED VINCENT -	1934	5th Aug. 1863	An improved mode of and apparatus for producing stereotype plates. (Communicated by Stephen Davis Tucker.)
NEWTON, ALFRED VINCENT -	1951	7th Aug. 1863	An improvement in the manufacture of shuttles. (Communicated by Paul Morin.)

New]

ALPHABETICAL INDEX OF PATENTEEES

[New

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, ALFRED VINCENT -	1972	10th Aug. 1863	An improved manufacture of blue and of violet colouring matter. (Communicated by Meister Lucius and Company.)
NEWTON, ALFRED VINCENT -	1980	11th Aug. 1863	An improved process for hardening cast iron. (Communicated by Thomas Allin.)
NEWTON, ALFRED VINCENT -	2031	15th Aug. 1863	Improved apparatus for printing. (Communicated by Benjamin Livermore.)
NEWTON, ALFRED VINCENT -	2151	31st Aug. 1863	Improvements in the mode of and apparatus to be used in sewing by machinery. (Communicated by Charles Frederick Bosworth.)
NEWTON, ALFRED VINCENT -	2152	31st Aug. 1863	Improved machinery for sawing irregular forms of wood. (Communicated by Henry Vrooman.)
NEWTON, ALFRED VINCENT -	2181	3rd Sept. 1863	Improved apparatus for cleaning and decortivating grain and seeds (Communicated by Adolphe Rousseau.)
NEWTON, ALFRED VINCENT -	2201	7th Sept. 1863	Improved apparatus for directing motion in right lines. (Communicated by Andrew Buchanan and William Alexander Righter.)
NEWTON, ALFRED VINCENT -	2226	9th Sept. 1863	Steam-engines. (Communicated by Henry Waterman.)
NEWTON, ALFRED VINCENT -	2301	18th Sept. 1863	An improvement in propelling vessels and in apparatus relating thereto. (Communicated by Jean Pierre Serve, Jr.)
NEWTON, ALFRED VINCENT -	2359	24th Sept. 1863	Manufacture of gunpowder and powder for blasting purposes. (Communicated by Alfred Nobel.)
NEWTON, ALFRED VINCENT -	2363	25th Sept. 1863	An improved joint for the tubes of surface condensers. (Communicated by John Van Voorst Booraem.)
NEWTON, ALFRED VINCENT -	2472	8th Oct. 1863	Construction of condensers. (Communicated by William Judson.)
NEWTON, ALFRED VINCENT -	2621	23rd Oct. 1863	An improved mode of manufacturing railway wheels. (Communicated by James Millholland.)
NEWTON, ALFRED VINCENT -	3099	8th Dec. 1863	Improvements in the mode of and apparatus for preparing cork stuffing for mattresses, pillows, cushions and other articles, and in the mode of applying the cork stuffing thereto. (Communicated by Anton Courlander Crondal.)
NEWTON, ALFRED VINCENT -	3181	16th Dec. 1863	Certain improvements in sewing machinery. (Communicated by Isaac Merrit Singer.)
NEWTON, ALFRED VINCENT -	3230	21st Dec. 1863	Construction of cotton gins. (Communicated by Enoch Osgood.)
NEWTON, JOHN TITUS -	1234	16th May 1863	Machinery for planishing and rolling sheet metal.
NEWTON, ROBERT -	930	13th April 1863	Machinery for separating and straightening the fibres of silk waste and other fibrous substances.
NEWTON, THOMAS -	631	5th March 1863	An improvement or improvements in refrigerators and other like articles.

New]

AND APPLICANTS FOR PATENTS OF INVENTION.

[New

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	30	3rd Jan. 1863	An improved method of firing or discharging cannon and other fire-arms, a part of which invention is applicable generally to the firing of charges of powder. (Communicated by George Washington Beardslee and Frederick Edwards Beardslee.)
NEWTON, WILLIAM EDWARD -	41	6th Jan. 1863	Magneto-electric telegraphs. (Communicated by George Washington Beardslee.)
NEWTON, WILLIAM EDWARD -	99	12th Jan. 1863	Improvements in the application of power designed for stationary and traction engines, propellers and other machinery. (Communicated by Perry Dickson and William Ashley Jones.)
NEWTON, WILLIAM EDWARD -	141	15th Jan. 1863	Microscopes. (Communicated by Conrad Von Rappard.)
NEWTON, WILLIAM EDWARD -	156	17th Jan. 1863	Manufacture of buttons. (Communicated by Pierre Labat.)
NEWTON, WILLIAM EDWARD -	282	30th Jan. 1863	Couplings for railway carriages. (Communicated by George Collyer.)
NEWTON, WILLIAM EDWARD -	308	3rd Feb. 1863	Reflectors. (Communicated by Pierre Thibault.)
NEWTON, WILLIAM EDWARD -	483	21st Feb. 1863	Construction of wind instruments of music. (Communicated by Ambroise Santucci.)
NEWTON, WILLIAM EDWARD -	529	25th Feb. 1863	Producing stereotype plates for printing purposes. (Communicated by Richard March Hoe.)
NEWTON, WILLIAM EDWARD -	644	6th March 1863	Improvements in the construction of metal casks and in the machinery employed in the manufacture thereof. (Communicated by Samuel Jefferson Seely and Edmund Brown Bulkley.)
NEWTON, WILLIAM EDWARD -	657	9th March 1863	Construction or laying of wooden floors. (Communicated by Edouard Hamelle.)
NEWTON, WILLIAM EDWARD -	708	16th March 1863	Manufacture of iron and steel. (Communicated by Emile Guillaume Boigues and Paul Rambourg.)
NEWTON, WILLIAM EDWARD -	716	17th March 1863	An improved preparation for the cure of scab, foot rot and other diseases of sheep and cattle. (Communicated by Patrick Hayes.)
NEWTON, WILLIAM EDWARD -	821	30th March 1863	An improved process for producing yellow coloring matters and other colors which may be derived therefrom. (Communicated by David Clovis Knab.)
NEWTON, WILLIAM EDWARD -	983	20th April 1863	Lamps. (Communicated by Robert Cornelius.)
NEWTON, WILLIAM EDWARD -	994	21st April 1863	Wrenches. (Communicated by Louis Schwartzkopff.)
NEWTON, WILLIAM EDWARD -	1010	23rd April 1863	An improved mode of repairing worn out files and rendering them again fit for use. (Communicated by Charles Adolphe Clavel.)
NEWTON, WILLIAM EDWARD -	1042	25th April 1863	Improvements in thrashing machines, part of which improvements are also applicable for hulling, decorticating, cleaning and polishing grains and seeds. (Communicated by Aristide Barbier and Nicolas Edouard Daubrée.)

[New]

ALPHABETICAL INDEX OF PATENTEEES

[New]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	1288	22nd May 1863	Manufacture of waterproof fabrics. (Communicated by John Foster Greene.)
NEWTON, WILLIAM EDWARD -	1289	22nd May 1863	Improved machinery for the manufacture of waterproof fabrics. (Communicated by John Foster Greene.)
NEWTON, WILLIAM EDWARD -	1327	26th May 1863	Certain improvements in machines for separating the fibre from the flesh of plants. (Communicated by Eduardo Juanes y Patullo.)
NEWTON, WILLIAM EDWARD -	1397	4th June 1863	Construction of casks, barrels, kegs and other analogous articles. (Communicated by John Connolly.)
NEWTON, WILLIAM EDWARD -	1424	8th June 1863	An improvement in needles. (Communicated by William Penn Hyde.)
NEWTON, WILLIAM EDWARD -	1425	8th June 1863	Nozzles for hose and water discharge pipes. (Communicated by Consider Harvey Morrison.)
NEWTON, WILLIAM EDWARD -	1437	9th June 1863	Propulsion of ships and other vessels. (Communicated by Frederick Warren Harris.)
NEWTON, WILLIAM EDWARD -	1541	19th June 1863	Manufacture of leaden pipes. (Communicated by Augustin Henri Hamon.)
NEWTON, WILLIAM EDWARD -	1573	22nd June 1863	Printing-machinery. (Communicated by Gustave Gilbert Leboyer.)
NEWTON, WILLIAM EDWARD -	1654	3rd July 1863	Treatment and preservation of skins of all kinds. (Communicated by Leonard Laureau.)
NEWTON, WILLIAM EDWARD -	1702	8th July 1863	Construction of locks and fastenings. (Communicated by Randolph Foster.)
NEWTON, WILLIAM EDWARD -	1715	9th July 1863	Barometers or gauges for measuring the pressure of fluids. (Communicated by Felix Richard.)
NEWTON, WILLIAM EDWARD -	1831	21st July 1863	Manufacture of mats, floor cloths or coverings for floors, straps, bands, ropes and other analogous articles which are usually made of textile or fibrous materials. (Communicated by Placide Peltreanu.)
NEWTON, WILLIAM EDWARD -	1881	29th July 1863	Cartridges. (Communicated by Silas Crispin.)
NEWTON, WILLIAM EDWARD -	1925	4th Aug. 1863	Improvements in machinery or apparatus for moulding and casting hollow projectiles. (Communicated by Jean Simon Voruz, Sen.)
NEWTON, WILLIAM EDWARD -	2072	20th Aug. 1863	Manufacture of cartridges. (Communicated by Albert Hook.)
NEWTON, WILLIAM EDWARD -	2110	26th Aug. 1863	Improved apparatus for extracting coal, ores or other minerals or substances from mines, which apparatus may be also employed for raising and lowering the workmen and their tools or implements. (Communicated by Melchoir Colson.)
NEWTON, WILLIAM EDWARD -	2120	27th Aug. 1863	Breech-loading fire-arms. (Communicated by Charles Coffey Alger.)
NEWTON, WILLIAM EDWARD -	2407	1st Oct. 1863	Improved apparatus for cleaning rice and other grain. (Communicated by Amasa Howe.)
NEWTON, WILLIAM EDWARD -	2591	21st Oct. 1863	Sewing-machines. (Communicated by Walter Davis Richards.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NEWTON, WILLIAM EDWARD -	2689	30th Oct. 1863	Improvements in looms for weaving terry and cut pile fabrics, parts of which improvements are also applicable to other kinds of looms.
NEWTON, WILLIAM EDWARD -	2711	2nd Nov. 1863	Clock work movements. (Communicated by Michel Ange Bosio.)
NEWTON, WILLIAM EDWARD -	2764	6th Nov. 1863	Sewing-machines. (Communicated by Walter Davis Richards.)
NEWTON, WILLIAM EDWARD -	2823	12th Nov. 1863	Gas-burners. (Communicated by George Washington Thompson and John Thomas Tully.)
NEWTON, WILLIAM EDWARD -	2852	14th Nov. 1863	Treatment or manufacture of wrought and cast iron and steel. (Communicated by Marc Antoine Augustin Gaudin.)
NEWTON, WILLIAM EDWARD -	2924	20th Nov. 1863	Construction of fan blowers for ventilating and other purposes. (Communicated by Milton Nobles.)
NEWTON, WILLIAM EDWARD -	2925	20th Nov. 1863	Improvements in the means of and instruments for attaching tags or labels to bales or packages of merchandize. (Communicated by Porter Fitch.)
NEWTON, WILLIAM EDWARD -	2958	24th Nov. 1863	Machinery for breaking and cleaning flax, hemp and other fibre yielding plants. (Communicated by James Edward Mallory and Gelston Sanford.)
NEWTON, WILLIAM EDWARD -	2959	24th Nov. 1863	Balloons or aeronautic apparatus. (Communicated by Eugene Godard.)
NEWTON, WILLIAM EDWARD -	3039	2nd Dec. 1863	Printing-machinery. (Communicated by Stephen Davis Tucker.)
NEWTON, WILLIAM EDWARD -	3253	23rd Dec. 1863	Breech-loading fire-arms. (Communicated by Philo Remington, Samuel Remington and Eliphalet Remington.)
NIBLETT, WILLIAM - - -	524	25th Feb. 1863	Apparatus for regulating the flow of gas for purposes of illumination.
NICHOLAS, JAMES - - -	2642	26th Oct. 1863	Treating Canadian petroleum and other mineral oils of a similar nature.
NICHOLSON, EDWARD CHAMBERS.	2892	18th Nov. 1863	Manufacture of coloring matters suitable for dyeing and printing.
NICQUET, CHARLES - - -	1431	9th June 1863	Apparatus for sorting and washing ores.
NIELD, JOHN - - - -	745	20th March 1863	Core barrels.
NIELD, THOMAS ARTHUR -	745	20th March 1863	Core barrels.
NIGHTINGALE, WILLIAM -	2584	21st Oct. 1863	Machinery for carding cotton and other fibrous materials.
NOAKES, BENJAMIN - - -	2604	22nd Oct. 1863	Improvements in the manufacture of metallic casks, bottles and other similar vessels, and in machinery employed therein.
NOBEL, ALFRED - - - -	2359	24th Sept. 1863	Manufacture of gunpowder and powder for blasting purposes. (Patented by Alfred Vincent Newton.)
NOBEL, LUDWIG - - - -	3164	15th Dec. 1863	Manufacture and strengthening of guns, hydraulic press and other cylinders.
NOBLE, ANDREW - - - -	3258	24th Dec. 1863	Mode of igniting explosive projectiles.
NOBLES, MILTON - - - -	2924	20th Nov. 1863	Construction of fan blowers for ventilating and other purposes. (Patented by William Edward Newton.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
NODDER, RICHARD JOSEPH - -	547	26th Feb. 1863	Improvements applicable to hats, caps, helmets, military head dresses and other like coverings for the head.
NOËL, CASIMIR - - -	1447	10th June 1863	Improvements in locomotive apparatus which is also applicable to other purposes. (Patented by William Clark.)
NOIROT, ALFRED - - -	2296	18th Sept. 1863	New tiles.
NORDHOFF, HENRY - - -	1567	22nd June 1863	Apparatus for carburetting gases. (Patented by Louis Antoine Majolier.)
NORIE, JAMES - - -	1164	9th May 1863	Improvements in making moulds for casting and in apparatus therefor.
NORMAN, ALFRED - - -	1669	4th July 1863	An improved apparatus for fanning or for agitating air.
NORMANDY, ALPHONSE RENÉ [LE MIRE.	2679	30th Oct. 1863	Manufacture of playing-cards.
NORRINGTON, FREDERICK -	730	18th March 1863	Girths or bands and knee caps for horses.
NORRIS, LUCIUS HENRY -	2373	26th Sept. 1863	Manufacture of india-rubber and gutta-percha compounds. (Communicated by Lyman Hall.)
NORTHROP, JONATHAN - -	2736	5th Nov. 1863	An improved apparatus for making fringes.
NORTON, CHARLES - - -	158	19th Jan. 1863	A new or improved method of roughing horses.
NORTON, JAMES LEE - - -	890	8th April 1863	Improvements in machinery for washing and drying wool and other fibres and rags, also in tentering, stretching and drying fabrics.
NORTON, JOHN - - -	797	26th March 1863	Projectiles or ignition missiles.
NORTON, MARCUS PORTER -	314	4th Feb. 1863	Improvements in postage, revenue and other stamps, and in apparatus for post marking and cancelling postage and other stamps. (Patented by George Tomlinson Bousfield.)
NORTON, WILLIAM - - -	2190	5th Sept. 1863	Laying and supporting submarine telegraph cables.
NOTON, WILLIAM - - -	3201	19th Dec. 1863	Certain improvements in machinery for opening and scutching cotton and other fibrous substances.
NOTTINGHAM, JOHN WILLIAM	991	21st April 1863	Two-wheeled vehicles.
NOTTINGHAM, JOHN WILLIAM	2573	20th Oct. 1863	Improvements in "Hansom cabs," parts of which improvements are also applicable to other wheeled carriages.
NOUVEL, LOUIS PIERRE, the [younger.	3059	5th Dec. 1863	Fret saws. (Patented by Henri Adrien Bonneville.)
NUNN, EDMUND BROOK - -	1033	25th April 1863	Hoes and cultivators.
NUNN, JOHN PHILLIPS - -	1033	25th April 1863	Hoes and cultivators.
NUNN, WILLIAM - - -	1272	21st May 1863	Construction of signal lanterns or lamps.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
O.			
O'NEILL, PATRICK BENIGNUS -	2655	27th Oct. 1863	An improved salinometer which is applicable also as a hydrometer and for other similar or analogous purposes.
OAKLEY, JOHN THOMAS -	1107	2nd May 1863	Improvements in the construction of garden pumps, part of which said improvements are applicable to fire-engines and other hydraulic machines.
OAKLEY, THOMAS - - -	1107	2nd May 1863	Improvements in the construction of garden pumps, part of which said improvements are applicable to fire-engines and other hydraulic machines.
OBERT, VICTOR - - -	3163	15th Dec. 1863	A new toy being a mechanical wooden horse.
ODDY, SAMUEL - - -	303	3rd Feb. 1863	Certain improvements in carding-engines.
OGLESBY, JOHN - - -	248	28th Jan. 1863	Apparatus for steaming, cooking and generating gas.
OHREN, MAGNUS - - -	414	16th Feb. 1863	Improvements in the construction of gas holders and in the mode of rendering gas holders self-acting.
OKES, JOHN CHARLES RAY- [MOND]	1711	9th July 1863	Pistons of steam-engines.
OLDFIELD, EDWARD - -	303	3rd Feb. 1863	Certain improvements in carding-engines.
OLDFIELD, EDWARD - -	2665	28th Oct. 1863	Self-acting mules for spinning and doubling cotton and other fibrous materials.
OLDFIELD, WILLIAM - -	959	16th April 1863	Improvements in the construction of locks applicable to despatch and other boxes, writing and dressing cases or other similar receptacles.
OLDING, HENRY JOHN - -	1254	19th May 1863	Improvements in treating flax and other fibrous plants in order to prepare the fibres thereof for spinning, and in apparatus employed therein.
OLDKNOW, THOMAS - -	729	18th March 1863	Construction of jacquards employed in bobbin net or twist lace machines.
OLIVER, EDWARD - - -	701	16th March 1863	Apparatus for lowering and disengaging boats from vessels.
OLIVER, EDWARD - - -	2228	9th Sept. 1863	Apparatus for lowering and disengaging boats from vessels.
OLLIS, JOHN MATTHIAS -	3002	30th Nov. 1863	Apparatus for obtaining fresh water from sea water.
OLLIVIER, ACHILLE - -	2159	1st Sept. 1863	Hydraulic apparatus. (Patented by William Clark.)
OMMANNEY, FREDERICK [FRANCIS]	2541	17th Oct. 1863	Certain improvements in "baling boxes" used in packing cotton or other fibrous materials.
ONIONS, JOHN COLLINGWOOD	1511	16th June 1863	Smiths' and other bellows.
OPPENHEIM, FREDERICK -	379	12th Feb. 1863	An improved plastic compound for dental purposes, to be used instead of wax, gutta-percha or resinous gums, in taking the impression of the mouth. (Partly communicated by Edward Bil-lard.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
OPPERMAN, CARL - - -	1756	14th July 1863	Means or apparatus to facilitate the connecting and disconnecting horses and other animals with carriages.
ORR, JOHN - - - -	1686	7th July 1863	Improvements in weaving piled and other fabrics and in the machinery or apparatus connected therewith.
ORR, JOHN - - - -	1736	11th July 1863	Improvements in weaving "chenille" and in the machinery or apparatus connected therewith.
OSBORNE, SAMUEL - - -	1045	27th April 1863	An improved machine for unwinding crinoline steel.
OSBORNE, THOMAS WESTWOOD	626	5th March 1863	Certain improvements in lamps.
OSBOURN, FREDERICK - -	1343	28th May 1863	Improved apparatus for pressing, smoothing and finishing garments or parts of garments.
OSGOOD, ENOCH - - -	3230	21st Dec. 1863	Construction of cotton gins. (Patented by Alfred Vincent Newton.)
OTTO, AUGUSTE NICOL - -	2098	24th Aug. 1863	Air and gas engines. (Patented by Richard Archibald Brooman.)
OXLEY, JAMES - - - -	1670	4th July 1863	Filtering apparatus.
OXLEY, WILLIAM - - - -	2358	24th Sept. 1863	Pickers for looms.

P.

PAGE, EDMUND - - - -	1926	4th Aug. 1863	Machinery for cutting splints for matches and for collecting the same.
PACKER, HARRIET LUTHERA -	2836	13th Nov. 1863	Apparatus used when rolling blinds, maps and other articles on rollers. (Patented by George Tomlinson Bougfield.)
PAGE, FREDERIC - - - -	2981	27th Nov. 1863	Improvements in furnaces and apparatus for the manufacture of volatile hydro-carbons, which improvements are also in part applicable to furnaces and apparatus for the manufacture of illuminating gas.
PAGE, JOHN - - - -	692	14th March 1863	Taps or valves.
PAGE, JOSEPH - - - -	1165	9th May 1863	An improvement or improvements in the manufacture of pens.
PAGE, THOMAS - - - -	1378	2nd June 1863	Shoeing horses.
PAGE, THOMAS - - - -	1427	8th June 1863	Improvements in propelling vessels and in apparatus for the same.
PAGE, THOMAS - - - -	1600	25th June 1863	Improvements in horse shoes and in their fastenings.
PAGE, WILLIAM CHARLES -	1804	18th July 1863	An improved mode of preventing and removing the incrustations in marine and land steam-boilers.
PAGE, WILLIAM CHARLES -	3076	7th Dec. 1863	Preventing the incrustation in steam-boilers and removing incrustation therefrom when formed.
PAGNY, AIMÉ FRANÇOIS -	580	2nd March 1863	A new agricultural implement for cultivating tubercles, roots and all oil plants.
PAIN, JOSEPH - - - -	1867	27th July 1863	Manufacture of umbrellas and parasols.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PAIN, WILLIAM - - -	620	5th March 1863	An improved method of supporting screens and straw shakers specially applicable to threshing machines.
PAINE, EDWARD - - -	570	28th Feb. 1863	Improved apparatus for facilitating the cleaning of vessels' bottoms while afloat.
PAINTER, WILLIAM - - -	2453	7th Oct. 1863	Lamps especially applicable to the burning of hydrocarbons. (Patented by Charles Pomeroy Button.)
PALLISER, WILLIAM - - -	1334	27th May 1863	Projectiles for ordnance.
PALLU, ALPHONSE - - -	2721	3rd Nov. 1863	Manufacture of zinc white. (Patented by Michael Henry.)
PALLU, ALPHONSE - - -	3228	21st Dec. 1863	Mode of and apparatus for constructing houses and other structures of plastic materials. (Patented by Michael Henry.)
PALMER, CHARLES MARK -	602	4th March 1863	An improved mode of applying and fastening metal sheathing to the bottoms of iron ships or vessels, and to iron for other uses.
PALMER, JOHN - - -	1843	23rd July 1863	Improvements in expelling solid and liquid refuse matter from steam and sailing ships, below the water line, applicable also for discharging cannon below water from ships and forts, and in part for charging gas retorts and iron furnaces, and for other similar useful purposes. (Patented by Matthew Augustus Soul.)
PAPIN, JOSEPH - - -	1227	15th May 1863	Manufacture of boots and shoes.
PARENT, ALFRED ISODORE [HONORÉ.]	1738	11th July 1863	Cartridges for breech-loading arms. (Patented by Richard Archibald Brooman.)
PARIGOT, CLAUDE - - -	347	7th Feb. 1863	Improvements in locks.
PARK, JAMES - - -	1138	7th May 1863	Communicating motion to machinery for manufacturing paper pulp.
PARK, JOHN - - -	2424	3rd Oct. 1863	An improved mode or method of filling tobacco pipes of an improved construction.
PARK, JOHN - - -	3073	7th Dec. 1863	Steering gear for ships and other vessels.
PARKER, ABRAHAM - - -	1256	19th May 1863	An improved apparatus for saving from destruction by fire persons and property in houses, buildings and ships, and also for ventilating ships. (Communicated by James Partridge.)
PARKER, AUGUSTUS WILLIAM	2035	15th Aug. 1863	Manufacture of soap.
PARKER, CHARLES - - -	2601	22nd Oct. 1863	Machinery or apparatus for winding yarns or threads.
PARKER, FREDERICK - - -	2638	26th Oct. 1863	Carriages.
PARKER, ISAAC - - -	1219	14th May 1863	Connecting and securing door and other knobs or handles to their spindles.
PARKER, ISAAC - - -	1805	18th July 1863	Construction of "sights" for fire-arms.
PARKER, JAMES - - -	2620	23rd Oct. 1863	Application of steam combined with air as a motive-power and for other purposes.
PARKER, ROBERT - - -	2024	15th Aug. 1863	Certain improvements in presser flyers to be employed in preparing, spinning and doubling cotton and other fibrous materials.
PARKES, SAMUEL HICKLING -	2699	31st Oct. 1863	Opera glasses, telescopes, microscopes, spectacles and other optical instruments.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PARKES, ZACHARIAH MAJOR -	317	4th Feb. 1863	An improvement in iron and other metal bond for use in building.
PARKIN, GEORGE - - -	2963	25th Nov. 1863	Improvements in apparatus employed in the manufacture of paraffin and other like oils from shale, cannel and other minerals.
PARKIN, JAMES - - -	324	5th Feb. 1863	Apparatus for polishing yarn, twine, threads and other similar materials.
PARKINSON, JAMES - - -	1182	11th May 1863	A new or improved mode of manufacturing tablets to be used for monumental purposes.
PARKINSON, THOMAS - - -	245	28th Jan. 1863	Carding-engines.
PARKINSON, THOMAS - - -	793	26th March 1863	An improved application of embroidery to cotton printed fabrics.
PARKINSON, THOMAS - - -	1201	13th May 1863	Machinery for weaving, sizing, dressing and dyeing.
PARNELL, MICHAEL LEOPOLD	790	26th March 1863	Improvements in the construction of locks and in the method of adjusting their spindles.
PARROT, FREDERIC - - -	2788	10th Nov. 1863	Certain improvements in keyless watches. (Patented by John Conrad Habicht.)
PARRY, GEORGE - - -	2477	9th Oct. 1863	Improvements in refining crude pig iron and in furnaces connected therewith.
PARSONS, DAVID BALL - - -	78	9th Jan. 1863	Reaping and mowing machines. (Partly communicated by Walter Abbott Wood.)
PARSONS, DAVID BALL - - -	598	3rd March 1863	Reaping and mowing machines. (Partly communicated by Walter Abbott Wood.)
PARSONS, PERCEVAL MOSES -	2876	17th Nov. 1863	Improvements in the construction and manufacture of ordnance, parts of which are applicable to small arms.
PARSONS, PERCEVAL MOSES -	3194	18th Dec. 1863	Ordnance, fire-arms and projectiles.
PARSONS, THOMAS FULHAM -	1580	23rd June 1863	Certain improvements in the mode or modes of preparing plates, bars or other objects of iron for being coated with metals or alloys.
PARSONS, WILLIAM - - -	600	3rd March 1863	Dining tables.
PARTRIDGE, JAMES - - -	1256	19th May 1863	An improved apparatus for saving from destruction by fire persons and property in houses, buildings and ships, and also for ventilating ships. (Patented by Abraham Parker.)
PASSAVANT, PHILIP - - -	1021	24th April 1863	Improvements in the manufacture of blue colouring matter and also of violet colouring matter. (Communicated by Friedrich Beyer.)
PASTORELLI, FRANCIS JOHN -	2714	3rd Nov. 1863	Construction of surveyors' levels and other surveying instruments.
PATEK, CHARLES - - -	2114	26th Aug. 1863	Obtaining and applying motive-power. (Patented by John Henry Johnson.)
PATERSON, JOHN - - -	329	5th Feb. 1863	Buckle and hook fastenings.
PATERSON, ROBERT - - -	794	26th March 1863	Improvements in portable apparatus for working drills and other instruments.
PATERSON, ROBERT - - -	3219	21st Dec. 1863	Steam-engines.
PATON, JOHN - - -	3057	5th Dec. 1863	Improvements in obtaining and applying heat and in apparatus therefor, being also in part applicable for lighting.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PATOUREL, JOHN PAUL BAUGH [LE	2313	19th Sept. 1863	Breech-loading fire-arms.
PATRULLO, EDUARDO JUANES Y	1327	26th May 1863	Certain improvements in machines for separating the fibre from the flesh of plants. (Patented by William Edward Newton.)
PATTERSON, JOHN - - -	1226	15th May 1863	Improvements in machinery or apparatus for grinding, crushing, cleaning and hulling or shelling various kinds of farm or vegetable produce, also applicable to the crushing or grinding of minerals and other substances.
PATTERSON, JOHN - - -	3297	30th Dec. 1863	Improvements in machinery or apparatus for grinding, crushing and hulling or shelling various kinds of farm or vegetable produce, applicable also to the crushing and grinding of minerals and other hard substances.
PATUREAU, FRANÇOIS - -	1356	29th May 1863	Manufacture of cardboard or paper boxes or receptacles.
PAUL, ALFRED - - -	166	20th Jan. 1863	Improvements in obtaining reciprocating motion in steam-engines, and for communicating the same to any ordinary pumps for whatever purpose they may be employed.
PAUL, AMÉDÉE - - -	604	4th March 1863	Spring bed bottom.
PAUL, WILLIAM CARNE - -	400	14th Feb. 1863	Mode of constructing spring mattresses and other such articles for sitting and reclining upon.
PAYNE, GEORGE - - -	1800	17th July 1863	Manufacture of soap.
PAYNE, JAMES - - -	823	30th March 1863	Fire-escapes.
PEABODY, JAMES HARPER -	1071	28th April 1863	An improved machine for agitating and mixing substances. (Patented by George Davies.)
PEACOCK, JAMES - - -	173	20th Jan. 1863	Looms for weaving textile fabrics. (Patented by William Clark.)
PEAKE, BENJAMIN - - -	2813	12th Nov. 1863	Improvements in the manufacture of neck ties, cravats and waistbands, which improvements are also applicable to other articles of wearing-apparel.
PEGRAM, THOMAS - - -	2083	22nd Aug. 1863	A plate holder for the photographic camera, adapted to carry different sized plates, each plate being on the same plane and in the same focus.
PELAZ, ANTOINE ALEXANDRE	1815	20th July 1863	Certain improvements in printing stuffs and other fibrous fabrics.
PELEGRIN, ADOLPHE - -	1199	13th May 1863	Laying submarine telegraph cables. (Patented by Richard Archibald Brooman.)
PELTEREAU, PLACIDE - -	1831	21st July 1863	Manufacture of mats, floor cloths or coverings for floors, straps, bands, ropes and other analogous articles which are usually made of textile or fibrous materials, (Patented by William Edward Newton.)
PEMBERTON, WILLIAM - -	1265	20th May 1863	Looms for weaving.
PENDLEBURY, JOHN TOMLIN- [SON.	3214	21st Dec. 1863	Construction of machines for cutting and bending wire and similar substances for copper smiths, tin plate, iron and zinc sheet workers.
PENÈDE, JOSEPH GUSTAVE -	1938	6th Aug. 1863	Apparatus for regulating the speed of steam and hydraulic engines.

Pen]

ALPHABETICAL INDEX OF PATENTEES

[Per

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PENGILLY, CHARLES - - -	2884	16th Nov. 1863	Mechanism or apparatus for reducing or pulverizing ores and other substances required to be reduced or pulverized.
PENISTON, WILLIAM MICHAEL	3293	29th Dec. 1863	Constructing and arming ships and floating batteries.
PENN, JOHN - - - -	572	28th Feb. 1863	Escape or relief valves to the cylinders of marine and other steam-engines.
PENNELL, HENRY CHOLMON- [DELEY.	2131	29th Aug. 1863	Construction of skates.
PENNEY, ROBERT - - -	199	22nd Jan. 1863	An improved solution or mixture for "fixing" certain colors employed in printing calico and other fabrics.
PENNINGTON, ALBERT - -	190	21st Jan. 1863	Apparatus for beating mats, rugs and other such like articles.
PENSON, RICHARD KYRKE -	899	9th April 1863	Apparatus used for warming railway carriages. (Communicated by Adrien Delcambre.)
PENTENKOFER, MAX - -	2568	20th Oct. 1863	Restoring the surface of pictures in oil without any danger to their original state.
PEPPER, JOHN HENRY - -	326	5th Feb. 1863	Apparatus to be used in the exhibition of dramatic and other like performances.
PEPPER, ROBERT - - -	2439	5th Oct. 1863	An improved machine for pressing or crushing spent hops.
PERET, ADOLPHE - - -	839	1st April 1863	Improvements in preventing fermentation in alcoholic and other liquids while drawing them from their containing vessels, and in apparatus for the same. (Patented by William Clark.)
PERKIN, WILLIAM HENRY -	859	4th April 1863	Manufacture of red and orange coloring matters.
PERKIN, WILLIAM HENRY -	2762	6th Nov. 1863	Manufacture of coloring matters suitable for dyeing and printing.
PERKINS, THOMAS - - -	1849	23rd July 1863	Horse rakes and hand rakes.
PERKS, THOMAS - - -	3106	9th Dec. 1863	Fastenings for brooches and other articles of jewellery.
PERNOLET, CHARLES CLAUDE [PHILIBERT NICOLAS.	1954	7th Aug. 1863	Coke ovens. (Patented by Richard Archibald Brooman.)
PERRIGAULT, JOSEPH - -	952	15th April 1863	An improved construction of blowing apparatus. (Patented by Alfred Vincent Newton.)
PERRIN, ANTOINE - - -	2669	28th Oct. 1863	An improvement in or addition to military knapsacks, travelling bags and other similar articles. (Patented by Michael Henry.)
PERRIN, ISAAC - - -	1838	22nd July 1863	An improved danger signal to be used on rifle, artillery and other practising grounds.
PERRY, ARCHIBALD HEWISON	809	28th March 1863	Improvements in working railway points, switches and signals, and in the apparatus to be employed for that purpose.
PERRY, FREDERIC - - -	1377	2nd June 1863	Valves and apparatus for regulating the speed of steam-engines. (Patented by George Allam Barrett, William Ezall, Charles James Andrews and Alfred Barrett.)
PERRY, STUART - - -	2809	11th Nov. 1863	Endless chain horse powers. (Patented by George Haseltine.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PETERSON, CHARLES - -	1550	20th June 1863	A new material or compound applicable to the manufacture of pipes or tubes, to caulking or covering ships' bottoms, and to other useful purposes.
PETERSON, OTTO FREDERICK [KOLVIG.]	2372	26th Sept. 1863	An improved construction of gas-burner. (Patented by Abraham Gleerup.)
PETITJEAN, TONY - - -	1497	15th June 1863	Improvements in the manufacture of glass.
PETITJEAN, TONY - - -	3154	14th Dec. 1863	Manufacture of glass. (Patented by Eugène Rascol.)
PETRIE, JOHN - - -	1426	8th June 1863	Machinery or apparatus for washing wool and other fibrous materials.
PETTIT, GEORGE BROOKS -	2154	31st Aug. 1863	A method of preparing mica and talc in order to render them applicable to articles of wearing-apparel and to ornamental purposes.
PEZOLD, ERNST - - -	2916	20th Nov. 1863	An improved pipe stick.
PFISTER, JEAN - - -	1915	3rd Aug. 1863	Lamps.
PHARISIER, JEAN ANDRÉ ISI- [DORE.]	3011	1st Dec. 1863	An improved plough. (Patented by William Edward Gedge.)
PHELPS, WALTER SCOTT -	1416	8th June 1863	A new and useful device for turning cross head wrists or pins, or for turning any cylindrical part of machinery which is secured between two arms. (Patented by William Clark.)
PHILIPPI, WILLIAM - -	25	3rd Jan. 1863	Manufacture of bearings and axle-boxes for machinery, carriages and railway rolling stock.
PHILIPPSON, RICHARD - -	1708	9th July 1863	Temples for looms.
PHILIPSON, RALPH HENRY -	2786	9th Nov. 1863	An improved machine adapted for performing various mining operations, such as working or cutting coal or other analogous substances in mines, forcing water from mines and air thereunto.
PHILLIPE, ADRIEN - - -	1828	21st July 1863	Watches and other time-keepers. (Patented by Richard Archibald Brooman.)
PHILLIPPS, MICHAEL - -	777	25th March 1863	Improvements in the manufacture of iron or other metallic rod and wire, and in the machinery or apparatus employed in such manufacture.
PHILLIPS, ANDREW - - -	178	21st Jan. 1863	Looms for weaving figured fabrics.
PHILLIPS, GEORGE - - -	3302	30th Dec. 1863	Production of aniline colours.
PHILLIPS, JAMES EDWIN -	1761	14th July 1863	Reaping and mowing machines.
PHILLIPS, JAMES EDWIN -	3054	4th Dec. 1863	Reaping and mowing machines.
PHILLIPS, JOHN - - -	2348	23rd Sept. 1863	Improvements in the construction of levels applicable to levelling, surveying, astronomical, nautical and other instruments or purposes to which levels are applicable.
PHILLIPS, SAMUEL HENRY -	383	12th Feb. 1863	An improved fastening for purses, portemonnaies, pocket-books, bags, reticules and such like purposes.
PHILLIPS, WILLIAM HENRY -	845	2nd April 1863	Means or apparatus for cleaning the bottoms of ships or other floating vessels.
PHIPPIN, JAMES KAY - -	3304	31st Dec. 1863	Certain improvements in looms for weaving.
PIAT, EUGENE FREDERIC -	1749	13th July 1863	Apparatus for suspending chandeliers, gaseliers and other weights. (Patented by Richard Archibald Brooman.)
PICK, IGNAZ - - -	2182	3rd Sept. 1863	Fastening gloves.

[Pic]

ALPHABETICAL INDEX OF PATENTEES

[Pin]

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PICKERING, JOHN ALEXANDER	1294	23rd May 1863	Covers or capsules for bottles, jars and similar vessels.
PICKERSGILL, THOMAS - -	1927	4th Aug. 1863	Machinery or apparatus for feeding wool, cotton and other fibrous materials into machines for preparing the same for spinning.
PIDDING, WILLIAM - -	116	14th Jan. 1863	Improvements in the soles and heels of boots and shoes, in stud nails, tips and toe or other plates used therewith, and in placing and securing them.
PIERCE, GEORGE HENRY -	1352	29th May 1863	Improved apparatus for heating buildings by means of hot water.
PIERCE, WILLIAM PICKET -	119	14th Jan. 1863	Machinery for rolling, grinding and cutting files. (Patented by George Tomlinson Bousfield.)
PIERCE, WILLIAM PICKET -	1216	14th May 1863	Machinery for rolling, grinding and cutting files and rasps. (Patented by George Tomlinson Bousfield.)
PIERCY, FREDERICK - -	3069	7th Dec. 1863	Improvements in the application of heat to water and other fluids, and in apparatus for the same.
PIERREARD, JEAN JOSEPH JULES	328	5th Feb. 1863	Improvements in machinery for supplying and spreading wool and other filamentous materials on belts, tables and other surfaces, to be afterwards carded and otherwise acted on. (Patented by Richard Archibald Brooman.)
PIERRE, LOUIS - - -	413	14th Feb. 1863	Improvements in wrought iron casements and in the means for fastening the same, which improvements are also partly applicable to the framework of glass doors, conservatories and similar structures. (Patented by John Henry Johnson.)
PIERRET, JEAN BAPTISTE -	2858	14th Nov. 1863	Engines and boilers specially applicable for agricultural purposes. (Patented by Richard Archibald Brooman.)
PIGOULÉTE, JOSEPH EMILE -	2334	22nd Sept. 1863	An improved method of compounding by agglomeration artificial fuel.
PILBEAM, ALEXANDER - -	1212	14th May 1863	Sewing-machines.
PILON, MARTIN REGUL - -	2998	30th Nov. 1863	Fire-arms.
PILTZ, FRANCIS ROBERT -	1335	28th May 1863	Improvements in the mode of producing ornamental surfaces applicable to the general purposes of decoration.
PINKNEY, DAVID GULLON -	2910	19th Nov. 1863	Apparatus for reefing and furling ships' square sails.
PINKNEY, ROBERT - - -	455	19th Feb. 1863	Manufacture of metallic pens.
PINNER, MORITZ - - -	2165	2nd Sept. 1863	The manufacture of a flexible translucent material or fabric to be used as a partial substitute for glass. (Communicated by Christoph Süsssegger.)
PINNER, MORITZ - - -	2308	19th Sept. 1863	An improved method of constructing magazines for the safer and more economical storing of volatile oils in localities where the ground and labor are expensive. (Patented by James Fraser.)
PINNEY, JOHN - - -	880	7th April 1863	Improvements in steam-engines and in the means of applying the same to the tilling of land, also in apparatus to be used with such engines in the tilling of land.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PIPER, JOSEPH - - -	738	19th March 1863	Apparatus employed in the manufacture of tin and terne plates.
PLACE, JOSEPH - - -	1467	12th June 1863	An improved combination of materials to be employed for the purposes of sizing and stiffening.
PLACE, JOSEPH - - -	2509	13th Oct. 1863	An improved application of certain schistous or shaly materials to the manufacture and finishing of paper.
PLANCHE, LOUIS - - -	143	15th Jan. 1863	Looms or machinery for the manufacture of lace and other fabrics. (Patented by Richard Archibald Brooman.)
PLANT, PASCAL - - -	52	6th Jan. 1863	Improvements in rocket torpedos and in the apparatus for directing the flight of the same under water. (Patented by John Henry Johnson.)
PLATT, ANSON - - -	2585	21st Oct. 1863	Balances or weighing machines. (Patented by George Haseltine.)
PLATT, JAMES - - -	253	28th Jan. 1863	Rotatory engines.
PLATT, JAMES - - -	1956	7th Aug. 1863	Apparatus for supplying steam-boilers with water.
PLATT, JAMES - - -	2341	23rd Sept. 1863	Improvements in machinery applicable to steam and water engines (as motors), which machinery is also applicable to lift and force pumps.
PLATT, JAMES - - -	2948	23rd Nov. 1863	Machinery and apparatus for cultivating land.
PLATT, JOHN - - -	445	18th Feb. 1863	Machinery or apparatus for cleaning cotton from seeds.
PLATT, JOHN - - -	2070	20th Aug. 1863	Machinery or apparatus for cleaning cotton and wool from seeds, burrs or other such extraneous matters.
PLATT, JOHN - - -	2071	20th Aug. 1863	Machinery or apparatus for winding narrow laps of wool.
PLATT, JOHN - - -	2111	26th Aug. 1863	Stoves or grates.
PLATT, JOHN - - -	3145	12th Dec. 1863	Improvements in the preparation of clay for the manufacture of bricks, tiles and other articles which may be made of such material.
PLATT, JOHN - - -	3301	30th Dec. 1863	Improvements in the manufacture of rollers or cylinders in which a certain degree of elasticity is required.
PLATT, THOMAS - - -	2067	20th Aug. 1863	Manufacture of certain colouring matters known as Prussian blue, Berlin blue, Paris blue, China blue and Turnbull's blue.
PLATTS, WILLIAM - - -	104	13th Jan. 1863	Certain improvements in telegraphic cables.
PLENTY, EDWARD PELLEW -	620	5th March 1863	An improved method of supporting screens and straw shakers specially applicable to threshing machines.
PLUCHART, STANISLAS - -	435	17th Feb. 1863	A new kind of food for horses.
POCACHARD, TONY - - -	170	20th Jan. 1863	Manufacture of clocks. (Patented by Henri Adrien Bonneville.)
POHL, JEAN ETIENNE - -	1848	23rd July 1863	Saddles. (Patented by William Clark.)
POIRRIER, ALCIDE - - -	1036	25th April 1863	Manufacture of blue and violet coloring matters suitable for dyeing and printing.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
POISSANT, LOUIS BASILIDE [SULFICE.	1655	3rd July 1863	Machinery for decorticating and cleaning corn and other grain. (Patented by Robert Davison.)
POITEVIN, ALPHONSE LOUIS -	586	2nd March 1863	Improvements in preparing and obtaining photographic impressions and in the application of such impressions. (Patented by William Clark.)
POLGLASE, JAMES - - -	2531	16th Oct. 1863	Improved apparatus for boring and cleaving stone.
POLKINGHORNE, JAMES - -	679	12th March 1863	Improvements in treating tin ores and in apparatus for treating ores and matters containing arsenic.
POLLACK, HEINRICH - -	1396	4th June 1863	An improvement in the manufacture of scarlet, brown and orange colors.
POLLACK, HEINRICH - -	2199	7th Sept. 1863	Certain improvements in machinery or apparatus for cutting hay, straw or other similar agricultural produce. (Patented by Nathan Sington.)
POLLAK, ANTHONY - - -	1251	19th May 1863	Breech-loading fire-arms. (Patented by John Henry Johnson.)
POLLAK, ANTHONY - - -	1963	8th Aug. 1863	Application of india-rubber and gutta-percha to the manufacture of brushes and mats. (Patented by Astley Paston Price.)
POLLARD, JAMES - - -	601	3rd March 1863	Improvements in warp-dressing and in apparatus connected therewith. (Communicated by Peter Garvie.)
POLLITT, JAMES - - -	2667	28th Oct. 1863	Improved equilibrium valves for steam-engines and other purposes.
POLS, JOHN ANTHONY - -	3114	10th Dec. 1863	Improvements in obtaining purified or refined oils, and in obtaining oil cakes from cotton seed and other vegetable substances, also in refining or purifying cod liver oil.
POMÈS, ISIDORE - - -	2871	16th Nov. 1863	An improved hydraulic motor.
PONCELET, EDOUARD - -	1666	4th July 1863	Steam-engines. (Patented by Henri Adrien Bonneville.)
PONCELET, LOUIS - - -	2553	19th Oct. 1863	An improved composition for rendering boots and shoes and other similar articles waterproof. (Patented by Henry Gilbee.)
PONTIFEX, CHARLES - - -	3008	30th Nov. 1863	Improvements in the construction of sluice and other cocks or valves, and in the means of connecting them and the ends of flexible hose pipes together.
POOLEY, CHARLES - - -	1028	25th April 1863	Certain parts of machinery for preparing and spinning cotton and other fibrous substances.
POOLEY, JOHN CARPENTER -	2312	19th Sept. 1863	Brewing or preparing beverages from malt and hops.
POPE, EDMOND - - -	2081	21st Aug. 1863	Breech-loading fire-arms.
POPE, JOHN BUCKINGHAM -	1008	23rd April 1863	Manufacture of metals.
POPE, WILLIAM - - -	2705	31st Oct. 1863	Machinery for breaking or crushing stone.
PORT, HENRY - - -	734	19th March 1863	Manufacture of boots and shoes. (Patented by George Haseltine.)
PORTLOCK, JOHN - - -	1391	3rd June 1863	An improved alarm apparatus.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PÔTEL, JEROME JEAN - -	850	2nd April 1863	Improvements in furnaces and fire-places having for object the consumption or prevention of smoke.
PÔTEL, JEROME JEAN - -	1351	29th May 1863	An improved method of accelerating the draft in furnaces and fire-places.
POTTER, ARTHUR - - -	2632	24th Oct. 1863	Railway waggons for the transfer of minerals and general merchandize.
POTTER, WILLIAM PERCEVAL	2632	24th Oct. 1863	Railway waggons for the transfer of minerals and general merchandize.
POTTS, FERDINAND - -	1300	23rd May 1863	Improvements in the manufacture of certain descriptions of iron tubing, and in the means of producing and applying an ornamental case to the same, which said means are also applicable to the production of ornaments in metal for other purposes.
POUGET, LOUIS AUGUSTE -	454	19th Feb. 1863	Manufacture of oil lamps.
POUILLET, CHARLES MARIE -	1866	27th July 1863	Sleepers or supports for the rails of railways. (Patented by Richard Archibald Brooman.)
POULIQUEN, YVES MARIE -	2792	10th Nov. 1863	An improved cowl or chimney pot. (Patented by Henri Adrien Bonneville.)
POUNCY, JOHN - - -	267	29th Jan. 1863	Improvements in obtaining, transferring and printing from photographic pictures or images, also in preparing materials for the same.
POWELL, THOMAS - - -	706	16th March 1863	An improved chopping block for butchers.
POWER, MATTHEW - - -	2965	25th Nov. 1863	Fire escapes.
POWER, RICHARD THRELFALL	2869	16th Nov. 1863	An improved method or apparatus for affixing labels on bottles, canisters and other like articles.
POWERS, EDWARD - - -	91	10th Jan. 1863	Improvements in the manufacture of caustic soda and potash, and carbonates, chromates and stannates of the same alkalis.
POWNALL, CHARLES JAMES -	2605	22nd Oct. 1863	Improvements in preparing and cleansing vegetable fibres and in machinery employed therein.
POYNTER, JOHN EDGAR - -	2508	13th Oct. 1863	Improvements in throwing projectiles by means of explosive agents and in apparatus therefor.
PRAGST, FRANCIS - - -	2116	27th Aug. 1863	Certain improvements in steam-engines and in the mode of utilizing steam.
PRATCHITT, JOHN - - -	2881	18th Nov. 1863	Improvements in and applicable to moveable platforms for railway stations.
PRATCHITT, WILLIAM - -	2881	18th Nov. 1863	Improvements in and applicable to moveable platforms for railway stations.
PRATT, EDMUND - - -	2427	3rd Oct. 1863	Finishing woollen fabrics made on twist lace machinery.
PRATT, WILLIAM THOMAS [CASSEL.	3135	11th Dec. 1863	A new method of and apparatus for enabling the points on railways to be shifted by an attendant in the train, while the train is in motion.
PREECE, THOMAS - - -	1698	8th July 1863	An improved corn and seed drill.
PRENTISS, ELIJAH FREEMAN -	247	28th Jan. 1863	Improvements in treating rock oil, petroleum, paraffine oil, coal oil and paraffine, and other like mineral oils and products therefrom.
PRESTON, FRANCIS - - -	2385	29th Sept. 1863	Machinery for rolling and cutting files and rasps.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PRICE, ASTLEY PASTON - -	541	26th Feb. 1863	Production and manufacture of blue colors. (Communicated by Augustus Eisenlohr.)
PRICE, ASTLEY PASTON - -	853	2nd April 1863	Apparatus employed in the fusion, manufacture, production and refining of metals.
PRICE, ASTLEY PASTON - -	1963	8th Aug. 1863	Application of india-rubber and gutta-percha to the manufacture of brushes and mats. (Communicated by Anthony Pollak.)
PRICE, DAVID SIMPSON - -	3270	24th Dec. 1863	Manufacture of projectiles.
PRICE, GEORGE - - -	594	3rd March 1863	Burglar-proof safes and strong room doors and frames.
PRICE, GEORGE BROOKE - -	82	9th Jan. 1863	Sights for fire-arms.
PRICE, JAMES - - -	3288	29th Dec. 1863	Improvements in apparatus for obtaining motive-power applicable to the working of pumps and other machinery.
PRICE, JOHN - - -	339	6th Feb. 1863	Signal lanterns suitable for being used in open boats.
PRICE, JOHN - - -	1922	4th Aug. 1863	Certain improvements in valves for steam-engines.
PRICE, ROWLAND GWYNN -	355	9th Feb. 1863	An improved machine for crushing and amalgamating auriferous quartz, and pulverizing and washing ores.
PRIDEAUX, THOMAS SYMES -	2848	14th Nov. 1863	Construction of armour for ships of war and land batteries.
PRIESTLEY, JOSEPH - -	1579	23rd June 1863	Looms for weaving.
PRIESTLEY, LISTER - -	1783	16th July 1863	Improvements in the manufacture of elastic boots and shoes, and in apparatus used therefor.
PRINCE, ALEXANDER - -	140	15th Jan. 1863	Sewing-machines.
PRINCE, ALEXANDER - -	2774	7th Nov. 1863	Sewing-machines.
PRITCHARD, ARTHUR - -	272	29th Jan. 1863	An improved method of preserving the contents of packages from air, water or damp.
PROCTER, STEPHEN - -	2664	28th Oct. 1863	An improved instrument for extracting corks from bottles.
PROFFITT, JOHN WILLIAM -	1007	23rd April 1863	An improved mode and apparatus for distributing sand or any other suitable substance or substances on the rails of railways and tramways.
PROGER, WILLIAM - -	2741	5th Nov. 1863	Lanterns and lamps for the same.
PROUDFOOT, DUNCAN - -	2489	10th Oct. 1863	Printing or dyeing textile fabrics.
PRUDON, PHILIPPE - -	648	9th March 1863	A new aromatic vinegar for removing stains from cloth and other materials. (Patented by Henri Adrien Bonneville.)
PRYSE, CHARLES - - -	750	20th March 1863	Improvements in breech-loading fire-arms, part of which improvements are also applicable to other descriptions of fire-arms.
PUDDEFOOT, MICHAEL - -	545	26th Feb. 1863	Implements for tilling and cultivating land.
PUMPHREY, JOSIAH - -	1735	11th July 1863	A new-fastener or holder for flowers or other decorations to coats and articles of dress.
PUNSHON, JOHN - - -	71	9th Jan. 1863	Improved means or apparatus for preventing overwinding at collieries and to provide extra breakage power to steam-engines.
PUNTIS, JOSIAH - - -	449	18th Feb. 1863	Improved appliances for displaying in the open air or indoors illuminated designs, devices, mottoes or announcements, and in which jets of gas are employed as the illuminating agent.

Pur]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Ram

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
PURDEY, JAMES - - -	1104	2nd May 1863	Breech-loading fire-arms.
PURDIE, THOMAS - - -	1521	17th June 1863	Plastering, colouring, and decoration of walls and ceilings.
PUTNAM, HENRY WILLIAM -	2132	29th Aug. 1863	Improved machine for wringing clothes.
PUTNAM, SILAS SAFFORD -	2838	13th Nov. 1863	Apparatus used when rolling blinds, maps, and other articles on rollers. (Patented by George Tomlinson Bousfield.)
PYNE, RICHARD WILLIAM -	3117	10th Dec. 1863	An improved sash or shutter fastener, also applicable to doors and casements.

Q.

QUADLING, EDWIN P. - - -	838	1st April 1863	An improved method of lubricating. (Patented by Michael Henry.)
QUELLE, EUGÈNE EHRENFRIED	1945	6th Aug. 1863	Inkstands.
QUICK, JOSEPH - - -	470	20th Feb. 1863	Apparatus for raising sewage and water.

R.

RADCLIFF, CHARLES - - -	2827	13th Nov. 1863	Dead beat independent centre seconds watches.
RADCLIFFE, DAVID - - -	372	11th Feb. 1863	Valve taps.
RADLEY, JAMES - - -	898	9th April 1863	Preventing the escape of fumes and matters from furnaces.
RADLEY, JAMES - - -	3309	31st Dec. 1863	Mounting and serving guns used upon vessels and fortifications.
RAFTER, HENRY - - -	988	21st April 1863	An improved process of obtaining printing surfaces.
RAGON, ADOLPHE ERNEST -	2350	24th Sept. 1863	Improved machinery or apparatus for stirring or mixing various ingredients or materials to a pasty consistence, said machinery being especially adapted to the manufacture of bread and other articles of food. (Communicated by Charles Constant Simonet de Changy.)
RAHILL, JAMES - - -	2268	16th Sept. 1863	Liquid compasses.
RAILTON, JOHN - - -	889	6th April 1863	Machinery for carding cotton and other fibrous substances.
RAIT, GEORGE - - -	2912	20th Nov. 1863	Improvements in the construction of dry gas-meters and in the means or apparatus employed therein.
RAMBOURG, PAUL - - -	708	16th March 1863	Manufacture of iron and steel. (Patented by William Edward Newton.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RAMSBOTTOM, JOHN - -	924	13th April 1863	Machinery for hammering, rolling and shaping metals.
RAMSBOTTOM, JOHN - -	2790	10th Nov. 1863	Machinery or apparatus for measuring and registering fluids, and in obtaining motive-power from the same.
RAND, GEORGE - - -	1786	16th July 1863	Means of and apparatus for boiling and cooking.
RANDEL, JAMES HENRY -	720	18th March 1863	A new and improved mode of inlaying gold and other metals in glass, and in a composition suitable for the manufacture of jewellery and other ornaments, buttons and other similar articles.
RANDOLPH CHARLES - -	979	20th April 1863	Surface condensers.
RANSOM, DENNIS WILLIAM -	639	6th March 1863	Fixing artificial teeth.
RANSOME, FREDERICK - -	1650	2nd July 1863	Improvements in coating or preserving iron ships or vessels, or iron used for other purposes.
RANSOME, ROBERT CHARLES -	21	2nd Jan. 1863	Reaping machines. (Communicated by Stanislaus Lalop.)
RAPPARD, CONRAD VON -	141	15th Jan. 1863	Microscopes. (Patented by William Edward Newton.)
RASCOL, EUGÈNE - - -	3154	14th Dec. 1863	Manufacture of glass. (Communicated by M. Tony Petitjean.)
RATTIER, EDMOND FRANÇOIS	2319	21st Sept. 1863	Crinolines.
RAVE, NICHOLAS - - -	1748	13th July 1863	Dyeing and printing. (Patented by James Laing.)
RAWLINGS, JAMES - - -	2678	29th Oct. 1863	Improved means of attaching cords to window sashes.
RAWORTH, THOMAS - - -	301	3rd Feb. 1863	Looms for weaving ribbons, elastic webbing and other narrow fabrics.
RAY, ROBERT HENRY - - -	3143	12th Dec. 1863	The manufacture of a certain kind of sauce.
RAYBAUD, EUGÈNE FRANÇOIS	1047	27th Aug. 1863	Improvements in the manufacture of hats and bonnets, and mode of preparing feathers to be used in the said manufacture.
REA, DAVIS WILSON - - -	2951	24th Nov. 1863	Preserving animal and vegetable substances.
READE, THOMAS MELLARD -	2801	11th Nov. 1863	Apparatus for regulating and controlling the supply of water to water-closets and other purposes.
READMAN, WILLIAM - - -	521	25th Feb. 1863	Improvements in the manufacture of carbonate of magnesia and of iodine and kelp salt and other products from kelp.
REAY, WILLIAM, JR. - - -	742	20th March 1863	An improved machine for amalgamating minerals and other metalliferous and other metallurgical products or substances.
REDFERN, JOHN - - - -	1243	18th May 1863	Construction of steam-boilers for marine, locomotive and stationary engines.
REDGATE, WILLIAM - - -	2236	11th Sept. 1863	Improvements in the manufacture of lace and in means or apparatus employed therein.
REDMAN, JESSE GUSTAVUS -	3012	1st Dec. 1863	Improvements in compounds or compositions for coating or covering iron or wooden ships and vessels, metallic sheathing, telegraph cables and other objects, to preserve them from decay, fouling or other destructive action.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
REDRUP, GEORGE - - -	352	7th Feb. 1863	Improvements in machinery for the cutting of shives, bungs, corks, spiles and vent or other pegs, and also in machinery for manufacturing the knives or cutters employed therein, such machinery being also applicable to the manufacture of trenails and other cylindrical and conical articles.
REDWOOD, THEOPHILUS -	1590	24th June 1863	Improved apparatus for straining or for mixing and straining liquid and solid substances.
REED, FREDERIC JOHN - -	447	18th Feb. 1863	Apparatus for traversing guns. (Communicated by Joseph Atkinson Yates.)
REED, GEORGE POTTER - -	1690	7th July 1863	Certain new and useful improvements in watches or time-keepers.
REEVES, ROBERT - - -	929	13th April 1863	Manufacture of liquid manure drills.
REID, ALEXANDER - - -	3113	10th Dec. 1863	An improved rag machine cylinder or swift and tooth of an improved principle, for the purpose of pulling up woollen and cotton rags, silk rags, hair bagging, and for cleaning and opening wools and waste, and for the pulling up of fibrous substances in the rag.
REID, FRANCIS - - -	2405	1st Oct. 1863	Collecting and saving the spirit or alcohol generated by spontaneous fermentation in raw sugar, concrete melado and molasses, and thrown off during the process of boiling or refining.
REILLY, JAMES - - -	769	24th March 1863	Lubricating horizontal shafting and bearings of all descriptions.
REMINGTON, ELIPHALET -	3253	23rd Dec. 1863	Breech-loading fire-arms. (Patented by William Edward Newton.)
REMINGTON, GEORGE - -	2830	13th Nov. 1863	Improvements in atmospheric or pneumatic railways and locomotive engines to be used in connection therewith.
REMINGTON, PHILO - - -	3253	23rd Dec. 1863	Breech-loading fire-arms. (Patented by William Edward Newton.)
REMINGTON, SAMUEL - -	3253	23rd Dec. 1863	Breech-loading fire-arms. (Patented by William Edward Newton.)
RÉMOND, ALFRED HENRY -	233	27th Jan. 1863	Improvements in preserving provisions and in the apparatus employed for such purpose. (Patented by George Davies.)
RÉMOND, ALFRED HENRY -	477	21st Feb. 1863	Improvements in preserving provisions and in the apparatus employed for such purpose.
RÉMOND, ALFRED HENRY -	1088	30th April 1863	An improved process for retaining the aroma of coffee and cocoa.
RENAUX, ALEXANDER - -	2344	23rd Sept. 1863	Gas condensers. (Patented by Edward Thomas Hughes.)
RENNIE, GEORGE BANKS -	2196	5th Sept. 1863	Improvements in the construction of floating docks and pontoons, and the means of cleaning, painting or repairing them.
RENNIE, JAMES - - -	2701	31st Oct. 1863	Manufacture of chandeliers, lamps and other apparatus employed in distributing light.
RENSHAW, JOSEPH - - -	672	11th March 1863	Machinery for dressing, raising and brushing silk and cotton velvets, velveteens, cords, plushes and other piled fabrics.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RENSHAW, JOSEPH - - -	2333	22nd Sept. 1863	Machinery for stretching woven fabrics.
REQUA, E. B. - - -	3282	28th Dec. 1863	Improvements in applying power to windlass and other barrels used for raising and lowering weights. (Patented by John Baldwin Cronin.)
RESTELL, THOMAS - - -	2577	20th Oct. 1863	An improved construction of walking-stick umbrella.
REVV, JULIAN JOHN - - -	2720	3rd Nov. 1863	Manufacture of explosive compounds.
REY, ALEXANDRE - - -	223	24th Jan. 1863	Manufacture of anvils and other metal articles requiring hard surfaces. (Patented by Richard Archibald Brooman.)
REYNELL, HENRY - - -	1423	8th June 1863	Improvements in the manufacture (by the introduction of cocoa nut husk or part thereof) of a substitute for ordinary felt and kamptulicon, and in utilizing said cocoa nut husk or part thereof for packing of wine coolers, refrigerators and ice chests, and caulking of ships and vessels.
REYNOLDS, GEORGE WAIDE -	2484	10th Oct. 1863	An improved manufacture of bands or strips for crinolines.
REYNOLDS, HENRY - - -	1532	19th June 1863	An improved method of rendering atmospheric air fit for illuminating purposes, and of increasing the illuminating power of inflammable gas.
RHODES, JOSEPH - - -	2240	11th Sept. 1863	An improvement in piecing machines.
RHODES, SAMUEL GIBSON -	1819	25th May 1863	An improved machine or apparatus for getting coal or other minerals.
RHODES, STEPHEN - - -	1249	19th May 1863	Machinery for twisting and doubling cotton, hemp, flax and other like fibrous materials.
RICHARD, CHARLES - - -	2119	27th Aug. 1863	A new or improved apparatus for lighting and cutting the ends of cigars.
RICHARD, FELIX - - -	1715	9th July 1863	Barometers or gauges for measuring the pressure of fluids. (Patented by William Edward Newton.)
RICHARDS, ALEXANDER KEENE	1628	30th June 1863	Improvements in ordnance and fire-arms, and in projectiles to be used therewith.
RICHARDS, GEORGE - - -	2121	27th Aug. 1863	Improvements in the construction of ordnance and fire-arms, and in the projectiles to be used therewith.
RICHARDS, ROWLAND - - -	3072	7th Dec. 1863	Breech-loading fire-arms.
RICHARDS, WALTER DAVIS -	2591	21st Oct. 1863	Sewing-machines. (Patented by William Edward Newton.)
RICHARDS, WALTER DAVIS -	2764	6th Nov. 1863	Sewing-machines. (Patented by William Edward Newton.)
RICHARDS, WALTER DAVIS -	2806	11th Nov. 1863	Caloric or heated air engines. (Communicated by Henry Messer.)
RICHARDS, WESTLEY - - -	1051	27th April 1863	Ordnance, fire-arms and cartridges.
RICHARDSON, JAMES COXON -	696	14th March 1863	Construction of ships.
RICHARDSON, ROBERT - - -	1009	23rd April 1863	Railway permanent way.
RICHARDSON, THOMAS - - -	1012	23rd April 1863	Manufacture of sulphate of soda.
RICHARDSON, THOMAS - - -	1342	28th May 1863	Treating the waste liquor obtained in the preparation of esparto grass.
RICHARDSON, THOMAS - - -	2315	19th Sept. 1863	Extraction or manufacture of oils from vegetable substances.
RICHARDSON, WILLIAM - - -	445	18th Feb. 1863	Machinery or apparatus for cleaning cotton from seeds.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RICHARDSON, WILLIAM - -	2070	20th Aug. 1863.	Machinery or apparatus for cleaning cotton and wool from seeds, burrs or other such extraneous matters.
RICHARDSON, WILLIAM - -	2071	20th Aug. 1863	Machinery or apparatus for winding narrow laps of wool.
RICHARDSON, WILLIAM - -	2111	26th Aug. 1863	Stoves or grates.
RICHARDSON, WILLIAM - -	3145	12th Dec. 1863	Improvements in the preparation of clay for the manufacture of bricks, tiles and other articles which may be made of such material.
RICHARDSON, WILLIAM - -	3301	30th Dec. 1863	Manufacture of rollers or cylinders in which a certain degree of elasticity is required.
RICHMOND, FRANCIS - -	724	18th March 1863	Machinery for washing potatoes and other vegetables.
RICHMOND, JAMES - - -	965	17th April 1863	Certain improvements in looms for weaving.
RICHMOND, JAMES GADSBY -	724	18th March 1863	Machinery for washing potatoes and other vegetables.
RICHMOND, THOMAS - - -	965	17th April 1863	Certain improvements in looms for weaving.
RICKARBY, GEORGE - - -	1879	29th July 1863	Window-frames and sashes.
RICKER, SAMUEL - - -	949	15th April 1863	Manufacture of gunpowder. (Patented by William Spence.)
RIDEOUT, WILLIAM JACKSON -	2520	14th Oct. 1863	Boiling rags and other paper-making materials.
RIDLEY, ROBERT - - -	1420	8th June 1863	Machinery and apparatus for working coal and other mines.
RIDLEY, ROBERT - - -	2327	21st Sept. 1863	Apparatus for giving a reciprocating motion to picks and cutting tools used in getting coal and other minerals and stone.
RIDOUT, MOSES THOMPSON -	2779	7th Nov. 1863	An improved machine for bending metallic pipes and spouts. (Patented by George Haseltine.)
RIGBY, HUGH - - - -	1394	4th June 1863	Improvements in steam-boilers and furnaces for the consumption of smoke.
RIGG, ARTHUR, JR. - - -	2457	7th Oct. 1863	Apparatus for propelling vessels.
RIGG, RICHARD - - - -	985	21st April 1863	An improved method of re-forming and re-using old or waste vulcanized india-rubber.
RIGHTER, WILLIAM ALEX- [ANDER.	2201	7th Sept. 1863	Improved apparatus for directing motion in right lines. (Patented by Alfred Vincent Newton.)
RIGO, EDOUARD MAXIMILIEN [AUGUSTIN.	1400	5th June 1863	Jacquard machines. (Patented by Robert William Sievier.)
RIGO, EDOUARD MAXIMILIEN [AUGUSTIN.	2885	18th Nov. 1863	Jacquard machines. (Patented by Robert William Sievier.)
RILEY, ROBERT - - - -	3047	4th Dec. 1863	Certain improvements in carding-engines.
RILEY, SAMUEL - - - -	964	17th April 1863	Manufacture or preparation of cocoa and chocolate.
RIO, PATRICIO MARCOS DEL -	1968	10th Aug. 1863	A new machine for obtaining motive-power.
RIPLEY, ABRAHAM - - -	1597	25th June 1863	Improvements in the method and construction of a packing chiefly applicable to piston rods, pumps and such like, and for forming the joints of gas, steam or water pipes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RIPLEY, HENRY WILLIAM -	913	10th April 1863	Machinery for preparing and printing wool and other fibres. (Communicated by Stanislas Vigoureux.)
RIPLEY, HENRY WILLIAM -	1085	29th April 1863	Apparatus for printing fibrous materials. (Communicated by Stanislas Vigoureux.)
RISLER, MATHIEU, the younger	2954	24th Nov. 1863	Photography. (Patented by George Davies.)
RISSE, FRANCIS JOSEPH -	895	9th April 1863	An improved haft or handle for holding tools or instruments of various sizes.
RITCHIE, CHARLES - -	537	26th Feb. 1863	An improved machine for making spiral lighters or spills from wood or other substance, and which machine will make and colour them when desired at one process or operation.
RIVIERE, HENRY - - -	2253	14th Sept. 1863	Construction and application of apparatus and implements used for the purpose of heating, cooling and evaporating.
ROBBINS, JOHN - - -	3046	4th Dec. 1863	Improved methods of obtaining oxygen gas.
ROBERT, JEAN JOSEPH -	1048	27th April 1863	Manufacture of spoons and forks.
ROBERTS, ALEXANDER -	754	21st March 1863	Improvements in agricultural implements and in apparatus for working the same.
ROBERTS, FREDERICK -	754	21st March 1863	Improvements in agricultural implements and in apparatus for working the same.
ROBERTS, JOHN - - -	722	18th March 1863	Organs, harmoniums and pianofortes.
ROBERTS, JOHN - - -	2291	18th Sept. 1863	Improvements in increasing, diminishing or otherwise regulating the power and tone of organs, harmoniums, pianofortes or other instruments with similar keys or key boards.
ROBERTS, MARTYN JOHN -	1318	25th May 1863	Improvements in means of and apparatus for preparing, spinning, twisting and doubling wool, cotton and other fibrous substances, and in lubricating the spindles and other parts of machinery used in these and other operations.
ROBERTS, MARTYN JOHN -	2155	31st Aug. 1863	The arrangement or fitting of axles for railway and other carriages.
ROBERTS, MARTYN JOHN -	2687	30th Oct. 1863	Apparatus for oiling wool.
ROBERTS, RICHARD PERCY -	451	19th Feb. 1863	Improved axle-boxes for carriages or vehicles. (Communicated by James A. Cramer.)
ROBERTS, WILLIAM - -	1442	10th June 1863	Steam-boilers.
ROBERTS, WILLIAM - -	1472	12th June 1863	Thrashing machines. (Patented by Thomas Hughes Milner.)
ROBERTS, WILLIAM - -	1764	14th July 1863	Ploughs.
ROBERTSON, JAMES - -	390	13th Feb. 1863	Apparatus or means for printing woven fabrics by blocks.
ROBERTSON, WILLIAM -	392	13th Feb. 1863	Machines for spinning and doubling.
ROBERTSON, WILLIAM -	2928	13th Nov. 1863	Certain improvements in machinery for spinning and doubling
ROBEY, JAMES - - -	982	20th April 1863	Improvements in apparatus for separating fluids from more solid matters mixed or combined therewith.
ROBIN, JEAN - - -	2917	20th Nov. 1863	An improved hoisting and lowering apparatus. (Patented by Charles Stevens.)
ROBINS, WILLIAM - - -	338	6th Feb. 1863	Construction of fire lighters or faggots.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ROBINS, WILLIAM BURNET -	1961	8th Aug. 1863	A new or improved instrument or apparatus for extinguishing fires.
ROBINS, WILLIAM BURNET -	2321	21st Sept. 1863	Portable fire and garden engines.
ROBINSON, CHARLES JAMES -	3170	15th Dec. 1863	Improvements in pressing cotton and other fibrous substances into bales, and in apparatus to be used for this purpose. (Communicated by George Brunton.)
ROBINSON, GEORGE - -	2422	2nd Oct. 1863	Manufacture of soda.
ROBINSON, GEORGE - -	3044	3rd Dec. 1863	Manufacture of soda and sulphuric acid.
ROBINSON, HENRY - -	2048	18th Aug. 1863	Lime kilns.
ROBINSON, JOHN - -	258	28th Jan. 1863	Improvements in and applicable to that apparatus known as "Giffard's injector," and in the adaptation of it to locomotive and other boilers.
ROBINSON, JOHN - -	2221	9th Sept. 1863	Steam-boiler and other furnaces.
ROBINSON, ORLANDO - -	380	12th Feb. 1863	Certain improvements in self-acting mules for spinning.
ROBINSON, SAMUEL - -	1579	23rd June 1863	Looms for weaving.
ROBINSON, SAMUEL - -	1689	7th July 1863	Spring hinges for swing doors.
ROBINSON, WILLIAM - -	10	1st Jan. 1863	An improvement or improvements in glasses for lamps used in ships, railway carriages and for other like purposes.
ROBSON, JAMES, JR - -	1973	11th Aug. 1863	Money tills.
ROBSON, SAMUEL SINCLAIR -	1489	13th June 1863	Improvements in apparatus for working the rudders of vessels and in auxiliary steering apparatus.
ROCHUSSEN, THEODORE AN- [THONY.	332	6th Feb. 1863	An improved boring bench for gun barrels. (Communicated by Charles Berger.)
ROCK, JOHN BOYLE - -	113	13th Jan. 1863	Apparatus for saving life and property from fire and other danger in buildings and mines.
RODGER, WILLIAM - -	1080	29th April 1863	Anchors.
ROECKNER, CARL HEINRICH -	188	21st Jan. 1863	Machinery and process for reducing wood to a fibrous condition for the manufacture of paper stuff or pulp.
ROECKNER, CARL HEINRICH -	1821	21st July 1863	Machinery and process for reducing wood to a fibrous condition for the manufacture of paper stuff or pulp.
ROGERSON, ABRAHAM - -	1577	23rd June 1863	Improvements in slubbing, intermediate and roving frames, in throstles and winding machines used for the manufacture of cotton or other fibrous materials.
ROISIN, JOSEPH BRIGITTE -	230	26th Jan. 1863	Gymnastical apparatus.
ROLFE, ALFRED - -	926	13th April 1863	Means or apparatus for propelling carriages on railways, tramways or on common roads.
ROLFE, ALFRED - -	2510	13th Oct. 1863	Means or apparatus for propelling carriages on railways, tramways or on common roads.
ROLLASON, ALEXANDER - -	1057	27th April 1863	Improvements in dyeing and staining fabrics, parts of which improvements are also applicable for dyeing, staining and ornamenting glass and other substances.
ROLLASON, WILLIAM - -	237	27th Jan. 1863	Manufacture of metallic boxes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ROLPH, JONAS - - -	1528	18th June 1863	Improvements in sewing-machines, which said improvements are also applicable to other useful purposes.
ROMBEAUX, SIGNORE - -	1150	8th May 1863	Construction of turntables. (Patented by Alexander Skwarcow.)
ROMERTZE, HENRY THEODOR	1705	9th July 1863	An improved "anatomical" bit for horses or other animals. (Patented by Samuel Davis.)
RONALD, JAMES - - -	1833	22nd July 1863	Improvements in and apparatus for dressing or preparing for spinning hemp, flax, Manilla hemp and other like fibrous material.
RONALD, JAMES - - -	2617	23rd Oct. 1863	Improvements applicable to the machinery used for spinning hemp, flax, Manilla, wool and other like long fibrous material, from the hand or when previously formed into a "sliver."
RONALD, JAMES - - -	3246	23rd Dec. 1863	Improvements in and apparatus for the conversion of ropes and other cordage into oakum, tow and paper stuff, parts of which are applicable to teasing and cleaning wool or hair on skins, and dressing waste tow, wool, hair and other "waste" fibres.
ROOFF, WILLIAM BROWN -	360	9th Feb. 1863	An improved respirator.
ROOT, JOHN BENJAMIN -	1499	15th June 1863	Certain improvements in engines for obtaining motive-power from steam or other liquid, also partly applicable to pumps. (Patented by William Clark.)
ROSECRANS, WILLIAM - -	2585	21st Oct. 1863	Balances or weighing-machines. (Patented by George Haseltine.)
ROSS, ALEXANDER - - -	670	11th March 1863	Apparatus for indicating any regulated maximum or minimum degree of temperature. (Patented by John Werge.)
ROSSELET, GEORGE - - -	2688	30th Oct. 1863	Apparatus for sustaining and raising ships or vessels, applicable also as life buoys.
ROSSER, SAMUEL EGAN - -	1296	23rd May 1863	Chimneys, fire-places, stoves and flues for warming and ventilating apartments.
ROSSETTER, WILLIAM - -	673	11th March 1863	Back beam warping machines.
ROSTAING, ALPHONSE AN- [THELME ANTOINE BARON DE.	1872	28th July 1863	An improved method of manufacturing iron and steel with cast iron taken in a subdivided state.
ROSWAG, M. CLEMENT - -	385	13th Feb. 1863	Processes or means employed for separating or extracting silver or other metals from lead. (Patented by George Henry Birkbeck.)
ROTHWELL, EDMUND JAMES -	763	23rd March 1863	Improvements in heating the feed water of steam-boilers.
ROTHWELL, JOHN WILLIAM [HUGHES.	763	23rd March 1863	Improvements in heating the feed water of steam-boilers.
ROUSSEAU, ADOLPHE - - -	2181	3rd Sept. 1863	Improved apparatus for cleaning and decorticating grain and seeds. (Patented by Alfred Vincent Newton.)
ROUTLEDGE, WILLIAM - -	2541	17th Oct. 1863	Certain improvements in "baling boxes" used in packing cotton or other fibrous materials.
ROWAN, WILLIAM - - -	1568	22nd June 1863	Pistons.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
ROWAND, ALEXANDER - -	2142	29th Aug. 1863	Improvements in evaporating fluid solutions, and in the machinery, apparatus or means employed therein.
ROWE, JOSEPH GRINDLEY -	3235	22nd Dec. 1863	Improved means of communication between the guard and engine driver of a railway train.
ROWELL, JOSEPH - - -	2192	5th Sept. 1863	Improvements in the manufacture and construction of fences, part of which are also applicable to the manufacture and construction of gate posts, and to poles and posts used for telegraph and signal purposes, and for stretching telegraph wires.
ROWELL, PHILIP GEORGE -	978	20th April 1863	A better and more economical mode of securing the bands of locomotive engine and tender springs, also a new method of applying the same.
ROWING, ESAU - - -	2532	16th Oct. 1863	Steam-engines and boilers.
ROWLAND, ELLIS - - -	1076	29th April 1863	Certain improvements in apparatus for weighing solid bodies and for measuring fluids, parts of which improvements are also applicable to the opening and closing of "dampers."
ROWLAND, ELLIS - - -	2818	12th Nov. 1863	Certain improvements in apparatus for weighing solid bodies and for measuring fluids, parts of which improvements are also applicable to the opening and closing of dampers.
ROWLAND, ISAAC - - -	836	1st April 1863	An improved mileage apparatus for measuring and registering the distances public vehicles or private carriages travel.
ROWLETT, WILLIAM TERTIUS	2368	26th Sept. 1863	Crinolines and hooped skirts.
ROWLEY, JOHN - - -	1075	29th April 1863	Improvements in the means or apparatus employed for recovering the fibres of wool from fabrics or materials composed of wool combined with cotton or other vegetable substances.
ROWLEY, JOHN - - -	2515	14th Oct. 1863	Apparatus for washing, scrubbing, scouring, bleaching and discharging impurities or other matters from woven or other fibrous materials.
ROYLE, GEORGE - - -	563	28th Feb. 1863	A new or improved apparatus for creasing or marking rouches.
RUDRUM, FREDERICK - -	690	14th March 1863	An apparatus for registering.
RUMPF, MARTIN HENRI -	1415	8th June 1863	Mounting and fitting bedsteads, chairs and other moveable seats on board ship. (Patented by William Clark.)
RUNKEL, MARK - - -	990	21st April 1863	Marine steam-engine governors. (Communicated by Henry Behrens.)
RUSHTON, HENRY - - -	161	19th Jan. 1863	Improvements in machinery for plaiting cotton thread or other fibrous material over steels for crinolines, and in the mode of securing the plaiting to prevent it slipping thereon.
RUSHTON, HENRY - - -	1198	13th May 1863	Head-dresses.
RUSS, BARNABAS - - -	319	4th Feb. 1863	Improvements in the construction of iron ships or vessels and of armour applicable thereto.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
RUSS, BARNABAS - - -	2690	30th Oct. 1863	Improvements in the construction of iron and other ships, vessels and batteries of war, and of cupolas and armour plates applicable thereto, parts of which improvements are also applicable to other useful purposes.
RUSSELL, GEORGE - - -	2158	1st Sept. 1863	Apparatus for cooking and for obtaining fresh water for use on ship board and otherwise.
RUSSELL, NORMAN SCOTT -	2016	14th Aug. 1863	Apparatus for working great guns.
RUTHARDT, JULIUS - - -	2487	10th Oct. 1863	Apparatus for purifying and increasing the illuminating power of gas.
RUTHVEN, MORRIS WEST -	1734	11th July 1863	Rudders or apparatus for steering vessels.
RYAN, WILLIAM - - -	997	21st April 1863	Improvements in apparatus for transmitting, equalizing and registering human power.
RYDER, GEORGE - - -	2785	9th Nov. 1863	Hay making machines.
RYDILL, GEORGE - - -	3113	10th Dec. 1863	An improved rag machine cylinder or swift and tooth of an improved principle, for the purpose of pulling up woollen and cotton rags, silk rags, hair bagging, and for cleaning and opening wools and waste, and for the pulling up of fibrous substances in the rag.

S.

SABEL, EPHRAIM - - -	157	19th Jan. 1863	Manufacture of artificial stone. (Communicated by Joseph Sepulchre.)
SACHSENBERG, GOTTFRIED -	49	6th Jan. 1863	Machinery for cutting clay in the manufacture of bricks, tiles and similar articles. (Patented by Julius Gustav Dahlke.)
SAEZ, COSME GARCIA - - -	1581	23rd June 1863	Breech-loading arms. (Patented by Richard Archibald Brooman.)
SAGAR, THOMAS - - -	1127	6th May 1863	Certain improvements in power looms for weaving.
SAGNES, JOSEPH - - -	2084	22nd Aug. 1863	Closing powder canisters and other vessels. (Patented by Richard Archibald Brooman.)
SAHLER, GUSTAVE - - -	1346	28th May 1863	Paddle-wheels. (Patented by Richard Archibald Brooman.)
SAINT, JEAN LUDOVIC D'ES- [TIENNE DE.	2934	21st Nov. 1863	An improved apparatus for closing and fastening gates, doors and things of that description.
SAINT, MARTIN HENRI REDA [DE.	3284	29th Dec. 1863	Apparatus for aerial locomotion.
SAINTY, JOHN - - -	275	29th Jan. 1863	Feeding-troughs for sheep and other cattle.
SAINTY, JOHN - - -	1561	22nd June 1863	An improved turnip cutter for cutting the last slice.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SAINTY, JOHN - - -	1876	29th July 1863	Construction of feeding-troughs for sheep and other cattle.
SAINTY, JOHN - - -	3234	22nd Dec. 1863	An improved turnip cutter for cutting the last slice.
SALMON, THOMAS WILSON -	426	17th Feb. 1863	Washing-machines.
SALOMONE, FREDRICO - -	2314	19th Sept. 1863	An improved apparatus for obtaining motive-power. (Patented by Ignazio de Angelis.)
SALT, THOMAS PARTRIDGE -	1258	19th May 1863	Manufacture of trusses.
SALZMANN, AUGUSTE - -	1709	9th July 1863	Improvements in ships and in propelling the same. (Patented by Richard Archibald Brooman.)
SAMUEL, JAMES - - -	1673	6th July 1863	Improvements in the manufacture of gas for lighting and heating purposes, and in apparatus connected therewith.
SAMUEL, WALTER - - -	918	11th April 1863	Improvements in or applicable to railway carriages to mitigate or lessen the effects of collisions to passengers.
SAMUELSON, ALEXANDER -	960	16th April 1863	Improvements in the construction and arrangement of machinery and apparatus for the manufacture of oil.
SAMUELSON, ALEXANDER -	1522	17th June 1863	Apparatus for evaporating liquids.
SANBORN, GEORGE HENRY -	130	15th Jan. 1863	Apparatus for cutting metallic tubes or pipes or pipes composed of other indurate substances. (Patented by Thomas Critchley Barraclough.)
SANBORN, GEORGE HENRY -	131	15th Jan. 1863	An improved alarum apparatus which may be employed in connection with locks or other fastenings. (Patented by Thomas Critchley Barraclough.)
SANDERS, JAMES - - -	175	20th Jan. 1863	Machinery and apparatus for the manufacture of trimmings and cap fronts.
SANDERSON, SIMON - - -	2082	19th Aug. 1863	An improved fastening for leggings, stays or other articles.
SANDFORD, GELSTON - - -	68	8th Jan. 1863	Improved machinery for breaking and cleaning flax, hemp and other fibre yielding plants. (Patented by Alexander Guild.)
SANDS, THOMAS - - -	1802	17th July 1863	Improvements in machine knitting needles and in machinery or apparatus for making the same. (Patented by John Henry Johnson.)
SANFORD, GELSTON - - -	2958	24th Nov. 1863	Machinery for breaking and cleaning flax, hemp and other fibre yielding plants. (Patented by William Edward Newton.)
SANTUCCI, AMBROISE - -	483	21st Feb. 1863	Construction of wind instruments of music. (Patented by William Edward Newton.)
SARGENT, CHARLES WILLIAM [HINE.]	1309	25th May 1863	Construction of carriages. (Patented by Henri Adrien Bonneville.)
SAROGLIA, JOSEPH - - -	1365	1st June 1863	Apparatus for printing fabrics, papers and other surfaces in colors. (Patented by William Clark.)
SATCHWELL, JOHN - - -	1211	14th May 1863	Improvements in nails or rivets for boots and shoes, applicable to other purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SAUNDERS, JOHN - - -	738	19th March 1863	Apparatus employed in the manufacture of tin and terne plates.
SAUNDERS, JOHN - - -	1438	9th June 1863	Distillation of bituminous substances. (Patented by Richard Archibald Brooman.)
SAUNDERS, JOHN - - -	3037	2nd Dec. 1863	Distillation or treatment of bituminous substances. (Patented by Richard Archibald Brooman.)
SAUNDERS, ROBERT - - -	374	11th Feb. 1863	Improvements in pavements and floors, which improvements are applicable also to stairs and steps.
SAUNDERS, ROBERT - - -	589	3rd March 1863	Improvements in metal sheathing for ships and vessels, and in the securing of such sheathing thereto.
SAUNDERS, ROBERT - - -	2756	6th Nov. 1863	Improvements in fastening together the parts of ships and vessels, and in respect to the more efficient caulking of the seams thereof.
SAUNDERS, ROBERT - - -	3144	12th Dec. 1863	Improved arrangements of apparatus or mechanism for rendering ships' cables less likely to part during heavy riding.
SAUNDERS, ROBERT - - -	3196	18th Dec. 1863	Construction and building of portable cottages or houses and other buildings.
SAUREL, BERNARD - - -	868	6th April 1863	Probes, catheters and similar surgical instruments. (Patented by Michael Henry.)
SAUTREUIL, PIERRE AUGUSTIN	2723	4th Nov. 1863	An improved apparatus for the lubrication of bearings, shafts or other parts of machinery subject to friction.
SAX, ANTOINE JOSEPH - - -	222	24th Jan. 1863	Rendering drum-skins and gut-strings less liable to hygrometric influences.
SAXON, GEORGE - - -	1759	14th July 1863	Metallic pistons.
SCHÄFFER, BERNHARD AUGUST	2555	19th Oct. 1863	An improved blasting powder. (Patented by Arnold Budenberg.)
SCHAFFHAUSER, MATHIAS -	2366	25th Sept. 1863	Machinery for making paper tubes used in spinning manufactories.
SCHIELE, CHRISTIAN - - -	1681	7th July 1863	Turbines.
SCHIELE, CHRISTIAN - - -	2008	14th Aug. 1863	Fans, pumps and machinery for propelling air, fluids or other substances, by centrifugal force.
SCHIELE, CHRISTIAN - - -	2581	21st Oct. 1863	Governors.
SCHIELE, CHRISTIAN - - -	2953	24th Nov. 1863	Hydraulic apparatus for hoisting, lifting and pressing.
SCHLUMBERGER, JULES [ALBERT.	117	14th Jan. 1863	An improved process for manufacturing colours for dyeing and printing. (Communicated by Jean Jaques Müller.)
SCHLUMBERGER, JULES [ALBERT.	395	13th Feb. 1863	Improvements in treating coal tar dead oils, and for producing phenic or carbolic acid. (Communicated by Jean Jaques Müller.)
SCHLUMBERGER, JULES [ALBERT.	1458	11th June 1863	Preparation of aniline dyes or coloring matters for dyeing, staining or printing textile substances.
SCHMALZ, ALEXANDER - - -	214	23rd Jan. 1863	Breech-loading fire-arms. (Patented by Edward Thomas Hughes.)
SCHMID, CHARLES - - -	611	4th March 1863	Improvements in the manufacture of sulphuric acid and in apparatus for the same. (Patented by William Clark.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SCHMIDT, AUGUSTUS THEO- [DORE.]	13	2nd Jan. 1863	Apparatus for burning oils and other inflammable fluids as fuel. (Patented by Frederick Collier Bakewell.)
SCHOFIELD, EDWIN ARTHUR -	1417	8th June 1863	Tools or apparatus for paring, rasping and scraping the edges of boot and shoe soles and heels.
SCHOFIELD, JOSEPH - -	2423	3rd Oct. 1863	Looms for weaving.
SCHOOLING, HENRY - -	1151	8th May 1863	Moulding or shaping lozenge paste or other plastic materials.
SCHOONMAKER, HENRY - -	1771	15th July 1863	An improved process for making paper transparent and transferring designs. (Patented by William Clark.)
SCHOUBERSZKY, CARL - -	1846	23rd July 1863	An improved apparatus for regulating the speed of trains on railways, and in assisting the locomotive engine and train in ascending and descending inclined planes. (Patented by Moritz Meisel.)
SCHUBERT, JOHANN ANDREAS	1038	25th April 1863	Safety valves. (Patented by Charles Beyer.)
SCHULTZE, EDWARD - -	2353	24th Sept. 1863	An improved mode of manufacturing gunpowder suitable for war, mining and general purposes. (Patented by Ernest Dronke.)
SCHWARTZKOPFF, LOUIS -	994	21st April 1863	Wrenches. (Patented by William Edward Newton.)
SCHWARZ, DR. HENRY - -	1519	17th June 1863	An improved means for the protection and preservation of lead surfaces exposed to the action of water, and for the protection of such surfaces from decomposition by atmospheric action. (Patented by Fédor De Wyldé.)
SCHWARZ, HENRY - - -	2551	17th Oct. 1863	Separation of molasses and other impurities from sugar crystals. (Patented by Fédor De Wyldé.)
SCHWEIZER, ANDRÉ - -	2858	14th Nov. 1863	Engines and boilers specially applicable for agricultural purposes. (Patented by Richard Archibald Brooman.)
SCORE, WILLIAM - - -	1507	16th June 1863	Manufacture of candles and soap.
SCOTT, EDWARD - - -	2023	15th Aug. 1863	Certain improvements in apparatus for governing or regulating the speed of engines. (Communicated by Arnold Winder.)
SCOTT, EDWARD - - -	2274	16th Sept. 1863	Certain improvements in looms for weaving.
SCOTT, HENRY YOUNG DAR- [RACOTT]	1073	28th April 1863	Manufacture of cementitious substances.
SCOTT, JOHN - - - -	2709	2nd Nov. 1863	An improved kind of envelope for the transmission of patterns or samples of merchandize by post.
SCOTT, ROBERT - - -	1322	26th May 1863	Improvements in apparatus for boring, mining and excavating or cutting, in motive-power engines, and in pressure gauges.
SCOTT, THOMAS - - -	2060	19th Aug. 1863	Construction of floating-docks or apparatus for lifting ships and other bodies.
SCOTT, THOMAS - - -	2512	13th Oct. 1863	Floating-docks.
SCRUTON, WILLIAM - -	1319	25th May 1863	An improved machine or apparatus for getting coal or other minerals.
SEAMAN, JOSEPH - - -	1404	5th June 1863	Implements to be used in the cultivation of soil.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SEANOR, SAMUEL EXLEY -	1319	25th May 1863	An improved machine or apparatus for getting coal or other minerals.
SEARS, HENRY BEAUFORT -	3181	15th Dec. 1863	Improvements in cleansing or dusting rice and other grain, and in the machinery or apparatus employed for that purpose.
SEATON, CHARLES - - -	3122	11th Dec. 1863	Permanent way of railways.
SÉBILLOT, AMÉDÉE MATHURIN [GABRIEL.	274	29th Jan. 1863	Improvements in the condensation of steam and in apparatus for the same. (Patented by William Clark.)
SECOR, JEROME BURGE - -	2772	7th Nov. 1863	An improvement in sewing-machines. (Patented by William Clark.)
SEDLEY, ANGELO JAMES -	1793	17th July 1863	Improvements in the canopies of bedsteads of metal or wood or both combined, and other articles of furniture used to sit or recline upon.
SEED, WILLIAM - - -	1459	11th June 1863	Machinery for drawing, slubbing, roving and spinning cotton and other fibrous material.
SEELY, SAMUEL JEFFERSON -	644	6th March 1863	Improvements in the construction of metal casks and in the machinery employed in the manufacture thereof. (Patented by William Edward Newton.)
SEITHEN, ANTON BRUNO -	854	2nd April 1863	Casings, covers or wrappers for bottles, jars and other articles.
SELINGUE, ANDRÉ - - -	1303	23rd May 1863	Safety garments. (Patented by Richard Archibald Broome.)
SELLAR, ALEXANDRIA - -	2633	24th Oct. 1863	An improved instrument for lubricating rifles and other descriptions of fire-arms, also ordnance.
SELLAR, ROBERT - - -	2752	6th Nov. 1863	An improvement in the construction of harrows.
SELLARS, JOHN - - -	3174	16th Dec. 1863	An improved preparation of food for cattle.
SELLARS, JOHN CARRINGTON	247	28th Jan. 1863	Improvements in treating rock oil, petroleum, paraffine oil, coal oil, and paraffine and other like mineral oils and products therefrom.
SENIOR, CHARLES - - -	782	25th March 1863	Means or apparatus for stretching fabrics.
SENIOR, CHARLES - - -	1834	22nd July 1863	Improvements in means or apparatus for closing, punching and rivetting hose pipes of leather or other substances, applicable also for punching and rivetting mill bands or driving straps and similar purposes.
SÉPULCHRE, JOSEPH - -	157	19th Jan. 1863	Manufacture of artificial stone. (Patented by Ephraim Sabel.)
SERGEANT, HENRY JOHN -	19	2nd Jan. 1863	Certain improvements in the method of dressing and finishing silk fabrics and fabrics composed of silk, cotton and wool.
SERVE, JEAN PIERRE, Jr, -	2301	18th Sept. 1863	An improvement in propelling vessels and in apparatus relating thereto. (Patented by Alfred Vincent Newton.)
SESTIER, LEON - - -	871	6th April 1863	Machinery or apparatus for manufacturing the ornamental tips of parasols, umbrellas and similar articles. (Patented by Edward Thomas Hughes.)
SETTLE, THOMAS - - -	999	22nd April 1863	Certain improvements in "flyers" to be employed in roving, slubbing and spinning cotton and other fibrous substances.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SEWARD, JAMES - - -	2913	20th Nov. 1863	An improved apparatus for preventing incrustation in steam-boilers.
SHACKLETON, ELLIS - -	218	24th Jan. 1863	Looms for weaving.
SHAND, JAMES - - -	1490	13th June 1863	Improvements in the arrangement and construction of steam fire-engines and in steam-boilers for the same, such boilers being applicable to other purposes.
SHANKS, JAMES - - -	1185	11th May 1863	Machinery for cutting or shearing the edges of grass or turf.
SHANKS, JAMES - - -	3232	22nd Dec. 1863	Manufacture of caustic soda and caustic potash.
SHANKS, JOHN - - -	2539	17th Oct. 1863	Improvements relating to water-closet and other valves or taps.
SHARPS, CHRISTIAN - -	1844	23rd July 1863	An improvement in revolving fire-arms. (Patented by George Davies.)
SHAW, JOHN - - -	2124	28th Aug. 1863	Machines for cutting or reducing turnips or other roots as food for animals.
SHAW, WILLIAM ANTHONY -	1025	24th April 1863	A mode of lining lead pipe with tin or its alloys.
SHEDLOCK, JAMES JOHN -	1501	16th June 1863	Valves for the passage of steam, gas and fluids.
SHEDLOCK, JAMES JOHN -	1645	2nd July 1863	Wet gas-meters.
SHEDLOCK, JAMES JOHN -	1722	10th July 1863	Improvements in the construction of soil pits and in the mode of emptying the same. (Communicated by Adolphe Kolb and Théodore De Levenhagen.)
SHELMERDINE, SAMUEL -	908	10th April 1863	Ornamentation by printing of felt hats.
SHEPARD, SILAS - - -	2545	17th Oct. 1863	An improved let off motion for looms. (Patented by Lewis Reese Chessbrough.)
SHEPHERD, EDWARD - -	3125	11th Dec. 1863	Preparation or manufacture of cocoa nut fibre for matting purposes.
SHEPHERD, GEORGE - -	2421	2nd Oct. 1863	Improvements in restoring the crystals of lump or refined sugar which has been divided by saws, and in apparatus employed for this purpose.
SHEPHERD, WILLIAM THOMAS	2421	2nd Oct. 1863	Improvements in restoring the crystals of lump or refined sugar which has been divided by saws, and in apparatus employed for this purpose.
SHEPPARD, JOHN - - -	1018	24th April 1863	Steam-engines.
SHERWOOD, WILLIAM - -	453	19th Feb. 1863	An improvement or improvements in wine glasses.
SHILLITO, BENJAMIN - -	1220	15th May 1863	Generating heat and motive-power.
SHORE, ALFRED THOMAS -	400	14th Feb. 1863	Mode of constructing spring mattresses and other such articles for sitting and reclining upon.
SHORROCK, CHRISTOPHER -	1179	11th May 1863	Certain improvements in power looms for weaving.
SHORROCK, CHRISTOPHER -	2157	1st Sept. 1863	Certain improvements in looms for weaving.
SHORROCK, WILLIAM - -	149	17th Jan. 1863	Certain improvements in power looms for weaving.
SHORROCK, WILLIAM - -	1179	11th May 1863	Certain improvements in power looms for weaving.
SHORROCK, WILLIAM - -	2517	1st Sept. 1863	Certain improvements in looms for weaving.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SHUTTLEWORTH, JOSEPH -	181	21st Jan. 1863	Rotatory screens suitable for screening wheat and other grain or seed.
SHUTTLEWORTH, JOSEPH -	270	29th Jan. 1863	Thrashing-machines.
SIBERT, JOHN - - -	595	3rd March 1863	Apparatus for winding and measuring lace.
SIBERT, JOHN - - -	2960	24th Nov. 1863	Improvements in the manufacture of joined blond and in the machinery employed therein.
SICKELS, FREDERICK ELSWORTH	2749	5th Nov. 1863	An improved mode of and apparatus for steering and turning vessels.
SIEGRIST, MICHEL - - -	440	18th Feb. 1863	An improved atmospheric brake or break.
SIEGRIST, MICHEL - - -	1436	9th June 1863	Construction of fountains.
SIEGRIST, MICHEL - - -	2015	14th Aug. 1863	Railway breaks actuated by the pressure of the atmosphere.
SIEMENS, CHARLES WILLIAM	464	20th Feb. 1863	Insulating and supporting telegraph line wires.
SIEMENS, CHARLES WILLIAM	972	18th April 1863	Improvements in furnaces which are principally applicable to the smelting of iron.
SIEMENS, CHARLES WILLIAM	2826	13th Nov. 1863	Apparatus for submerging submarine telegraph cables. (Partly communicated by Werner Siemens.)
SIEMENS, FREDERICK - -	972	18th April 1863	Improvements in furnaces which are principally applicable to the smelting of iron.
SIEMENS, WERNER - - -	2826	13th Nov. 1863	Apparatus for submerging submarine telegraph cables. (Patented by Charles William Siemens.)
SIEVIER, ROBERT WILLIAM -	1400	5th June 1863	Jacquard machines. (Communicated by Edouard Maximilien Augustin Rigo and Charles Grognet.)
SIEVIER, ROBERT WILLIAM -	2885	18th Nov. 1863	Jacquard machines. (Communicated by Edouard Maximilien Augustin Rigo and Charles Grognet.)
SIGL, GEORG - - - -	1893	31st July 1863	Construction of force pumps.
SILVESTER, ALFRED - - -	1630	30th June 1863	Apparatus to be used in the exhibition of dramatic and other like performances.
SILVESTER, JOHN - - -	858	4th April 1863	Attaching guards to pressure gauges.
SIMLICK, HENRY JOSEPH -	2089	22nd Aug. 1863	Manufacture of fusees or matches employed to light cigars and pipes.
SIMLICK, HENRY JOSEPH -	2811	12th Nov. 1863	Manufacture of fusees or matches employed to light cigars and pipes.
SIMMELKEAR, THOMAS - -	1947	6th Aug. 1863	An improved composition for coating or painting the bottoms of ships or vessels to prevent them from fouling.
SIMMONDS, JAMES - - -	2973	26th Nov. 1863	Stink traps for water-closets, sinks and other purposes.
SIMMONS, JOSEPH - - -	1839	22nd July 1863	Ploughs.
SIMON, EDWARD SIEGMUND -	1974	11th Aug. 1863	An improved fastening for leggings.
SIMONETON, ANTOINE - -	2937	21st Nov. 1863	Manufacture of sacks, bags and garments without seam.
SIMPSON, EDWARD LINDSEY -	988	21st April 1863	An improvement in waterproof compounds and in fabrics prepared therewith.
SIMPSON, JOHN HAWKINS -	3068	7th Dec. 1863	Manufacture of boots and shoes.
SIMPSON, JOSEPH - - -	1626	30th June 1863	Certain improvements in iron hurdles and fencing.
SIMPSON, WILLIAM - - -	401	14th Feb. 1863	Means for rendering ships' and other compasses insensible to local attraction.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SIMPSON, WILLIAM - -	883	8th April 1863	Insulating the magnetic needle or needles in compasses.
SIMPSON, WILLIAM - -	956	16th April 1863	Improvements in purifying and treating coal gas, sulphuretted hydrogen, and in other gases containing sulphuretted hydrogen, and in obtaining sulphur, sulphuric and other acids in such treatment.
SIMPSON, WILLIAM - -	1808	20th July 1863	Manufacture of hollow cutting tools.
SIMS, REUBEN - - -	810	28th March 1863	Improvements in reaping and mowing machines, part of which improvements are applicable to horse works.
SIMS, REUBEN - - -	2169	2nd Sept. 1863	Reaping and mowing machines.
SIMS, WILLIAM - - -	1464	12th June 1863	A new compound extract to be employed as a means for the cure of deafness.
SINGER, ISAAC MERRITT -	1132	6th May 1863	Sewing-machines.
SINGER, ISAAC MERRITT -	3181	16th Dec. 1863	Certain improvements in sewing machinery. (Patented by Alfred Vincent Newton.)
SINGTON, NATHAN - - -	2199	7th Sept. 1863	Certain improvements in machinery or apparatus for cutting hay, straw or other similar agricultural produce. (Communicated by Heinrich Pollack.)
SIROU, JEAN - - - -	343	7th Feb. 1863	A new medicinal preparation for internal and external application.
SIVAL, DÉSIRÉ (called LASERVE)	143	15th Jan. 1863	Looms or machinery for the manufacture of lace and other fabrics. (Patented by Richard Archibald Brooman.)
SIVAL, LÉON (called LASERVE)	143	15th Jan. 1863	Looms or machinery for the manufacture of lace and other fabrics. (Patented by Richard Archibald Brooman.)
SKINNER, HENRY EDWARD -	2395	30th Sept. 1863	A new kind of conical packing for taps.
SKINNER, THOMAS - - -	1595	24th June 1863	Ornamentation of silver, german silver, britannia metal, electro-plated or other plated goods.
SKULL, EDWIN - - - -	24	3rd Jan. 1863	Improvements in chairs and other seats or apparatus for sitting or reclining on, which improvements are also applicable to tables.
SKWARCOW, ALEXANDER -	1150	8th May 1863	Construction of turntables. (Communicated by Signore Rombeaux.)
SLATER, JAMES - - - -	1766	14th July 1863	Improved machinery for compressing bricks, tiles and other plastic materials.
SLATER, JOHN WILLIAM -	1952	7th Aug. 1863	Production of yellow and orange coloring matters.
SLAUGHTER, EDWARD - -	2458	7th Oct. 1863	Locomotive engines.
SLEIGH, WILLIAM WILLCOCKS	1578	23rd June 1863	A new method for obtaining motive-power.
SLOAN, THOMAS JAMES - -	257	28th Jan. 1863	Improvements in the manufacture of braid and in machinery or apparatus employed therein. (Patented by John Henry Johnson.)
SLOAN, THOMAS JAMES - -	2239	11th Sept. 1863	Certain improvements in braiding machines.
SLOPER, BEVAN GEORGE -	1112	4th May 1863	Apparatus for separating metals from earthy and other matters mixed with them.
SMALL, THOMAS - - - -	1144	7th May 1863	Motive-power machinery.
SMALL, THOMAS - - - -	2304	18th Sept. 1863	Motive-power machinery.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SMALLPAGE, JOHN HENRY -	937	14th April 1863	Improvements in the action and arrangement of machines for winding cops, in the construction and arrangement of banks for holding cops for warping purposes, in the formation of shuttles for receiving cops, and for apparatus for packing and securing cops in shuttles, one part of which improvements consisting of a spring clutch is applicable to machines in general.
SMETHURST, JOHN - - -	707	16th March 1863	Improvements in the construction of ships and vessels for the purpose of obtaining additional strength and motive-power.
SMETHURST, JOHN - - -	825	31st March 1863	Improvements in steam-engines and boilers, part of which improvements is applicable to heating purposes.
SMITH, ANDREW - - -	228	26th Jan. 1863	Improvements in certain parts of staples, locks, bolts, latches and other similar fastenings.
SMITH, AUGUSTUS - - -	1813	20th July 1863	Improvements in machinery for dragging bristles, applicable also to drawing or sorting fibres and hair into different lengths.
SMITH, EDWARD TYRREL -	3272	26th Dec. 1863	Apparatus for exhibiting the flow of real water and other effects, applicable to theatrical purposes.
SMITH, FREDERICK WARWICK	1366	1st June 1863	An improved apparatus for conveying goods either in bulk or otherwise, whether to or from the warehouse or vessel, having an inclined vertical or horizontal movement, to be worked either by pressure of air or by vacuum and atmospheric pressure.
SMITH, GEORGE - - -	1297	23rd May 1863	A certain new manufacture for firing explosive compounds.
SMITH, GEORGE - - -	1305	23rd May 1863	Lamps for burning hydro-carbon oils. (Communicated by Louis Martin.)
SMITH, GEORGE - - -	1889	30th July 1863	Improvements in buffing and traction apparatus of railway carriages and waggons.
SMITH, GEORGE HENRY -	741	19th March 1863	Sewing-machines.
SMITH, GEORGE THOMAS -	935	14th April 1863	Metallic window shutters.
SMITH, HENRY - - -	359	9th Feb. 1863	Drills or machines for depositing seed and manure.
SMITH, HENRY - - -	2913	20th Nov. 1863	An improved apparatus for preventing incrustation in steam-boilers.
SMITH, HUGH - - -	419	16th Feb. 1863	Apparatus for feeding horses.
SMITH, JAMES - - -	174	20th Jan. 1863	A new description of motive-power engine.
SMITH, JAMES - - -	539	26th Feb. 1863	Furnace fire-grates.
SMITH, JAMES - - -	1706	9th July 1863	A new description of hydraulic engine for raising water and other fluids above their common level, the fluids so raised to be used as a motive-power.
SMITH, JAMES - - -	2206	8th Sept. 1863	Furnace fire-grates.
SMITH, JAMES - - -	2945	23rd Nov. 1863	An improved composition for coating or covering the bottoms of ships.
SMITH, JOHN - - -	359	9th Feb. 1863	Drills or machines for depositing seed and manure.
SMITH, JOHN - - -	942	14th April 1863	Improvements in furnaces and boilers for the generation of steam, partly applicable also to other purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SMITH, JOHN - - -	2036	17th Aug. 1863	Machinery for finishing woven fabrics.
SMITH, JOHN - - -	2799	11th Nov. 1863	Improvements in machinery for finishing or beetling woven fabrics, which improvements are also applicable to fulling machines.
SMITH, JOHN BURNS - - -	361	10th Feb. 1863	Improvements in carding-engines for carding and drawing flax, tow, in part applicable to carding cotton or other fibrous substances.
SMITH, JOHN THOMAS - - -	5	1st Jan. 1863	Obtaining motive-power from steam and the products of combustion.
SMITH, JOSEPH - - -	3171	16th Dec. 1863	Breech-loading fire-arms.
SMITH, MARK - - -	284	31st Jan. 1863	Certain improvements in looms for weaving.
SMITH, MICHAEL - - -	1965	8th Aug. 1863	Obtaining farinaceous material from potatoes.
SMITH, MICHAEL - - -	2465	8th Oct. 1863	Improvements in washing, cleansing, salting and packing butter, and in apparatus to be used therein.
SMITH, RICHARD - - -	2739	5th Nov. 1863	Preparing or obtaining coloring matters.
SMITH, ROBERT - - -	910	10th April 1863	An improved medicated oil for the preservation of metal, wood or stone.
SMITH, ROBERT - - -	2025	15th Aug. 1863	Manufacture of paper hangings.
SMITH, ROBERT - - -	2656	27th Oct. 1863	Doubling and winding machines.
SMITH, SAMUEL - - -	1593	24th June 1863	Improvements in the manufacture of liquorice and in the means or apparatus employed therein.
SMITH, SAMUEL - - -	2988	27th Nov. 1863	Improvements in composition or means for the purpose of destroying insects by fumigation, and in means or apparatus employed therewith.
SMITH, SAMUEL - - -	3155	14th Dec. 1863	Means or apparatus for the manufacture of lozenges.
SMITH, STEPHEN RANDOLL - - -	2527	15th Oct. 1863	Improvements in apparatus for connecting chain cables and for clearing a ship's hawse when foul, and also in apparatus for acting on and presenting strain to the chain cables when ships are riding at anchor.
SMITH, SYDNEY - - -	2745	5th Nov. 1863	Improvements in safety valves for steam-boilers and in valves and taps for regulating the flow of fluids.
SMITH, SYDNEY - - -	3060	5th Dec. 1863	Hydraulic pressure gauges suitable for measuring the pressure in the cylinders of hydraulic presses.
SMITH, THOMAS - - -	1543	20th June 1863	Certain improvements in the construction of reels covered with silk or other suitable material, used as machines for the purpose of dressing flour.
SMITH, THOMAS - - -	2193	5th Sept. 1863	An improved wagon break.
SMITH, THOMAS - - -	2988	27th Nov. 1863	Improvements in composition or means for the purpose of destroying insects by fumigation, and in means or apparatus employed therewith.
SMITH, THOMAS - - -	3155	14th Dec. 1863	Means or apparatus for the manufacture of lozenges.
SMITH, WALTON - - -	3254	23rd Dec. 1863	Lathes for turning.
SMITH, WILLIAM - - -	688	13th March 1863	Machinery for cultivating land and sowing seed.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SMITH, WILLIAM - - -	1260	19th May 1863	Transferring plain or coloured prints or designs to wood or other surfaces.
SMITH, WILLIAM - - -	2302	18th Sept. 1863	Constructing breech-loading ordnance. (Communicated by John Gregory.)
SMITH, WILLIAM - - -	2303	18th Sept. 1863	Improvements in the construction and mode of working ordnance for ships and forts, and in the means of protecting those engaged in working guns employed for such purposes. (Communicated by John Gregory.)
SMITH, WILLIAM - - -	2400	1st Oct. 1863	An improved process for recrystallizing sugar.
SMITH, WILLIAM THOMAS -	1101	2nd May 1863	Washing machines.
SMITH, WILLIAM THOMAS -	1875	28th July 1863	An improved method of securing or tightening the cords of blind and other rollers.
SMITHETT, RICHARD HUDSON	2523	14th Oct. 1863	Application of wheels to railway carriages.
SMITHIES, CHARLES - -	300	3rd Feb. 1863	Certain improvements in preparing and bleaching "Rheea" and other fibrous materials and fibres, which improvements are also applicable to bleaching yarns or piece goods.
SMITHIES, GEORGE LANCELOT	300	3rd Feb. 1863	Certain improvements in preparing and bleaching "Rheea" and other fibrous materials and fibres, which improvements are also applicable to bleaching yarns or piece goods.
SNELL, WILLIAM - - -	1282	22nd May 1863	Butt hinges. (Communicated by William Henry Hayes.)
SNELL, WILLIAM - - -	1565	22nd June 1863	Improvements in arrow shaped projectiles and in guns for discharging the same. (Communicated by Ferdinand Leitenberger.)
SNELL, WILLIAM - - -	1635	1st July 1863	An improved waterproof material. (Communicated by Jules Wiese.)
SNELL, WILLIAM - - -	2566	20th Oct. 1863	Improvements in surface condensers for steam and other vapours. (Communicated by George Wagstaff Yapp.)
SNIDER, JACOB, JR. - -	1139	7th May 1863	Breech-loading fire-arms and ordnance.
SNIDER, JACOB, JR. - -	2156	1st Sept. 1863	Improvements in breech-loading and other ordnance, part of which is applicable to the utilizing of old smooth bore cannon, and in projectiles to be used therewith.
SNIDER, JACOB, JR. - -	2773	7th Nov. 1863	Breech-loading fire-arms and ordnance. (Patented by George Stephen Melland.)
SNOOK, THOMAS - - -	3024	2nd Dec. 1863	An improved apparatus for causing a stronger and better draught or current of air, so that house fires may be lighted or kindled in a very short space of time, for effecting a very considerable saving in fuel, and for throwing the heat from such fire into the building or room.
S'ODERBERG, OLOF JOHAN -	2521	14th Oct. 1863	Reflecting apparatus. (Patented by Ossian Esaias Sonnenstein.)
SOLLIER, ISIDORE - - -	2546	17th Oct. 1863	Washing machines. (Patented by John Henry Johnson.)
SOLVAY, ERNEST - - -	3131	11th Dec. 1863	Apparatus by means of which the formation of carbonates of soda by direct combination is rendered practically available for manufacturing purposes.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SONNENSTEIN, OSSIAN ESAIAS	2521	14th Oct. 1863	Reflecting apparatus. (Communicated by Olof Johan S'oderberg.)
SONNHAMMER, CHARLES	2058	19th Aug. 1863	An improved fan.
SONSTADT, EDWARD - -	1278	21st May 1863	Manufacture and purification of the metal magnesium.
SONSTADT, EDWARD - -	1763	14th July 1863	Manufacture of sodium.
SORTAIS, THEODORE AUGUSTE [MARIE.]	830	31st March 1863	Electric telegraph printing apparatus. (Patented by Richard Archibald Brooman.)
SOUL, MATTHEW AUGUSTUS	1843	23rd July 1863	Improvements in expelling solid and liquid refuse matter from steam and sailing ships below the water line, applicable also for discharging cannon below water from ships and forts, and in part for charging gas retorts and iron furnaces, and for other similar useful purposes. (Communicated by John Palmer.)
SOUTHALL, CHARLES HENRY	2755	6th Nov. 1863	Improvements in self-acting machinery or apparatus worked by steam or other power, for cutting and shaping the soles and heels of boots and shoes and screwing them on to the uppers or coverings, and also in vices for holding the same, and tools for paring, blacking and glazing or otherwise ornamenting the edges of the soles and heels.
SOUTHBY, ANTHONY GAPPER	1207	13th May 1863	Railway roof lamps, station, signal and other fountain lamps.
SOUTHBY, ANTHONY GAPPER	1699	8th July 1863	Diverse lamps.
SOUTHBY, ANTHONY GAPPER	2899	19th Nov. 1863	Improvements of stills or retorts for the distillation of petroleum or tars from coal or shale or the products thereof.
SOUTHBY, EDMUND RICHARD	1109	4th May 1863	Extraction of scents from plants, flowers and other odoriferous substances.
SOUTHGATE, JOHN - - -	2859	14th Nov. 1863	Overland and other portmanteaus.
SOUTHGATE, JOSHUA JOSEPH	7	1st Jan. 1863	Improved arrangements for portable fire escapes.
SOUTHWOOD, WILLIAM - -	108	13th Jan. 1863	Improvements in machinery for manufacturing nails or brads.
SOUTTER, WILLIAM - - -	9	1st Jan. 1863	Certain apparatus for raising and planishing metals.
SOVEREIGN, LEVI LEMON -	2873	16th Nov. 1863	An improved agricultural implement for cultivating land and for sowing seed.
SPARLING, JOHN ALEXANDER	1524	18th June 1863	Improvements in twisting and winding silk and in the machinery or apparatus to be employed therein.
SPEED, JOHN JAMES - - -	3151	14th Dec. 1863	A new and improved mode or process of covering or insulating wire for telegraphic and other uses or purposes, with twine, cordage and other covering of a like character.
SPEIGHT, GEORGE - - -	2748	5th Nov. 1863	An improvement in collars and cuffs.
SPEIGHT, JOHN - - -	168	20th Jan. 1863	Certain improvements in the construction of carding-engines.
SPEIRS, DAVID - - -	2138	29th Aug. 1863	Looms for weaving.
SPENCE, PETER - - -	543	26th Feb. 1863	Manufacture of potash alum and other salts of potash.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SPENCE, PETER - - -	863	4th April 1863	Manufacture of sulphuric acid and sulphate of iron.
SPENCE, PETER - - -	2364	25th Sept. 1863	Production of sulpho-cyanide of ammonium and other sulpho-cyanides.
SPENCE, JAMES - - -	2371	26th Sept. 1863	An improved plastic composition applicable to the coating of metallic and other surfaces.
SPENCE, WILLIAM - - -	949	15th April 1863	Manufacture of gunpowder. (Communicated by Samuel Ricker.)
SPENCE, WILLIAM - - -	3153	14th Dec. 1863	Calendering machines. (Communicated by Jules Auguste Lequeux Muston.)
SPENCER, ELI - - -	2833	13th Nov. 1863	Mules for spinning and doubling.
SPENCER, GEORGE - - -	896	9th April 1863	Preventing incrustation in steam-engine boilers.
SPENCER, GEORGE - - -	2065	20th Aug. 1863	Improved solutions to be used in the manufacture of paints and preservation of wood, stone and metallic surfaces, and in the preservation and waterproofing of fibrous materials generally. (Communicated by Richard Eaton.)
SPENCER, JOHN - - -	2471	8th Oct. 1863	Machinery for separating different sizes of roots.
SPENCER, JOHN FREDERICK -	389	13th Feb. 1863	Steam-engines.
SPENCER, JOHN FREDERICK -	442	18th Feb. 1863	Improvements in apparatus for regulating and working the valves of steam and other engines.
SPENCER, JOHN FREDERICK -	1517	17th June 1863	Steam, gas and water tube joints.
SPERRY, WALTER DAVIES -	2454	7th Oct. 1863	Pumps. (Patented by Charles Pomeroy Button.)
SPERRY, WALTER DAVIES -	2455	7th Oct. 1863	Harrows. (Patented by Charles Pomeroy Button.)
SPICER, HENRY REVELL -	641	6th March 1863	Improvements in protecting and preserving the bottoms and sides of ships and other submerged surfaces from oxidation or fouling by incrustation, the attachment of barnacles, the action of animalculæ, or from any other like causes of injury.
SPICER, HENRY REVELL -	909	10th April 1863	Boxes or cases for the enclosure and preservation of human remains.
SPICER, JOHN IBBETSON -	1947	6th Aug. 1863	An improved composition for coating or painting the bottoms of ships or vessels to prevent them from fouling.
SPILL, DANIEL - - -	1046	27th April 1863	Manufacture of mill straps and driving bands.
SPILL, DANIEL - - -	2367	26th Sept. 1863	Manufacture of driving straps or bands and of flexible tubes or hose.
SPILL, GEORGE - - -	1046	27th April 1863	Manufacture of mill straps and driving bands.
SPILL, GEORGE - - -	2367	26th Sept. 1863	Manufacture of driving straps or bands and of flexible tubes or hose.
SPINK, DANIEL - - -	497	24th Feb. 1863	Construction and arrangement of armour plates for ships.
SPINK, JOHN - - -	384	12th Feb. 1863	Machinery for tenoning, grooving, sawing and otherwise cutting wood.
SPIVEY, WILLIAM - - -	2423	3rd Oct. 1863	Looms for weaving.
SPURRIER, THOMAS - - -	1314	25th May 1863	Manufacture of ornamental metal cylinders.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
STACK, FREDERICK RICE -	2096	24th Aug. 1863	Construction of military bridges, piers, landing stages and escalading apparatus.
STAFFORD, CHARLES WESLEY	468	20th Feb. 1863	Projectiles for ordnance. (Patented by William Clark.)
STAFFORD, PATRICK PLUNKETT [LESLIE.	1500	15th June 1863	Fire-arms.
STAINS, VICTOR DE - -	3162	15th Dec. 1863	Improvements in steam apparatus for raising and forcing water, applicable to steam navigation and water works in general.
STAINTON, MATTHEW - -	2807	11th Nov. 1863	Apparatus for steering ships and vessels.
STANLEY, ALFRED - - -	1142	7th May 1863	Certain improvements in the mode of finishing clasps and other such like metallic connectors, and which said mode of finish is also applicable to other purposes.
STANLEY, JABEZ - - -	2431	5th Oct. 1863	Propelling.
STANLEY, JOHN - - -	872	7th April 1863	Steam-engines and generators.
STANLEY, JOHN MARTIN -	2431	5th Oct. 1863	Propelling.
STANLEY, WILLIAM FORD -	226	26th Jan. 1863	Mathematical drawing instruments.
STARCK, AXEL - - -	3169	15th Dec. 1863	Manufacture of paper from a material not hitherto used for that purpose. (Communicated by Matthew Carter.)
STARCK, LUDWIG - - -	2537	17th Oct. 1863	Apparatus for ascertaining the weight of the load supported by the springs of railway locomotives and carriages, for the purpose of regulating or equalizing such load. (Patented by Moritz Meisel.)
STARKEY, JOHN - - -	2274	16th Sept. 1863	Certain improvements in looms for weaving.
STARKEY, JOHN - - -	3304	31st Dec. 1863	Certain improvements in looms for weaving.
STAUFEN, WERNER - - -	550	27th Feb. 1863	Converting certain fibres into a substitute for human and other hair, to be used for all the purposes for which human and other hair is now used, and also for the manufacture of textile fabrics.
STEART, JAMES - - -	1271	21st May 1863	Extracting the fibre from zostera marina and other aquatic vegetable productions.
STEART, JAMES - - -	2941	21st Nov. 1863	Extracting the fibre from zostera marina and other aquatic vegetable productions.
STEELE, JOSEPH - - -	1508	16th June 1863	Apparatus for removing the bran or outer skin from wheat and other grain.
STEINMETZ, BERNHARD - -	2637	26th Oct. 1863	Locks for bags.
STEPHENS, JOSEPH THOMPSON	1886	30th July 1863	Machinery for the manufacture of yarns, threads, laid twine and other cordage.
STEPSKI, ADOLF - - -	1301	23rd May 1863	Improvements in indicating the position of trains upon railways and in apparatus employed therein. (Patented by Richard Archibald Brooman.)
STERLING, WOOLSEY GEORGE	1996	12th Aug. 1863	An improved lamp for burning coal oil and other similar hydro-carbons, without the aid of a draught chimney. (Patented by William Clark.)
STEVENS, CHARLES - - -	2917	20th Nov. 1863	An improved hoisting and lowering apparatus. (Communicated by Jean Robin and Pierre Dumas.)
STEVENS, EBENEZER - - -	94	12th Jan. 1863	Ovens, hot plates and cooking apparatus.
STEVENS, EBENEZER - - -	3043	3rd Dec. 1863	Apparatus used when cooking.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
STEVENS, FRANCIS BOWES -	1159	8th May 1863	Steam-engines. (Patented by George Tomlinson Bousfield.)
STEVENS, GEORGE - - -	335	6th Feb. 1863	Means or apparatus for effecting a regular supply of air or aëriform fluids for various purposes.
STEVENS, GEORGE - - -	1287	22nd May 1863	Improvements in coke ovens and in building and heating ovens or retorts for generating coal gas connected therewith.
STEVENS, GEORGE - - -	1921	4th Aug. 1863	Means or apparatus for effecting a regular supply of air or aëriform fluids for various purposes.
STEVENSON, JAMES COCHRAN	1012	23rd April 1863	Manufacture of sulphate of soda.
STEWART, ALEXANDER - -	855	4th April 1863	Saddles.
STEWART, CHARLES - - -	3150	14th Dec. 1863	Making boots and shoes.
STEWART, CHARLES PATRICK	258	28th Jan. 1863	Improvements in and applicable to that apparatus known as "Giffard's injector," and in the adaptation of it to locomotive and other boilers.
STEWART, CHARLES PATRICK	1092	30th April 1863	Improvements in engines, machinery and apparatus for obtaining compressed air, and for applying the power thereof in propelling railway and other carriages.
STEWART, JOHN - - -	2890	18th Nov. 1863	Certain improvements in steam-boilers or generators.
STEWART, ROBERT - - -	1900	31st July 1863	Operating the cut off valves of steam-engines.
STICKLAND, JAMES - - -	1161	9th May 1863	Improvements in laying veneers on to surfaces, in applying the glue for that purpose, and in the apparatus employed.
STIFF, WILLIAM CHARLES -	320	4th Feb. 1863	Manufacture of gun barrels.
STILEMAN, JAMES FLETCHER -	501	24th Feb. 1863	An improvement in melting and smelting furnaces. (Patented by George Davies.)
STILLE, LUDWIG - - -	1732	10th July 1863	Improvements in the construction and arrangement of galvanic batteries, and in the utilization of products resulting therefrom.
STOCKER, ALEXANDER RICH- [MOND.]	1576	23rd June 1863	Improvements in preparing and fashioning iron applicable to the manufacture of boot heels, tips and horse shoes, and in part of the machinery or apparatus to be employed therein.
STOCKLEY, JOSEPH - - -	202	22nd Jan. 1863	Apparatus for grinding, smoothing and polishing plate glass.
STOKES, CHARLES - - -	1785	16th July 1863	An improved expanding and contracting horse collar.
STOKES, WILLIAM - - -	322	4th Feb. 1863	Improvements in the construction of window sashes, whereby the same are rendered more weather proof and secure against draughts and burglars, and permit the outside to be cleaned with the facility of the inside.
STOPFORD, CHARLES - - -	209	23rd Jan. 1863	Construction of hats and other coverings for the head.
STORER, WILLIAM - - -	1931	5th Aug. 1863	Electro-motive engines.
STOREY, THOMAS - - -	57	7th Jan. 1863	Improvements in compound waterproof and ornamental fabrics.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
STRANGMAN, EDWARD - -	208	23rd Jan. 1863	Pipes for smoking tobacco.
STRAWSON, EDWARD - -	438	18th Feb. 1863	Improvements in the manufacture of buttons which may be instantaneously attached without sewing.
STRETTON, THOMAS COX -	1237	16th May 1863	Machinery or apparatus employed in the dressing of lace or other fabrics.
STRONG, SAMUEL - -	2464	8th Oct. 1863	Breech-loading fire-arms. (Patented by Caleb Crosswell.)
STROUBINSKY, WOLDEMAR -	1775	15th July 1863	Apparatus for telegraphing by electricity. (Patented by Richard Archibald Brooman.)
STROUD, JOHN THOMAS - -	105	13th Jan. 1863	Certain improvements in fixed and portable lights for domestic and other uses, applicable for burning gas and the mineral oils or spirits now so commonly used.
STROUD, JOHN THOMAS - -	1041	25th April 1863	Improvements in the manufacture of and in the machinery and appliances for holding, drilling, turning, tapping, fitting and shaping certain parts of steam, water, gas and lamp fittings.
STRUTHERS, WILSON - -	350	7th Feb. 1863	Securing the corks, stoppers or lids of bottles, jars and other similar vessels.
STUART, GEORGE - - -	780	25th March 1863	Bleaching jute fibre.
STÜBBE, WILLIAM HERMANN	685	13th March 1863	Governors for marine and other engines.
STUBBS, FRANCIS HENRY -	3280	24th Dec. 1863	Improvements in or applicable to locomotive engines.
STUBER, FREDERICK GEORGE -	276	29th Jan. 1863	Improvements in the construction of air-tight boxes, cases, cupboards and similar vessels.
STUBER, FREDERICK GEORGE -	2535	16th Oct. 1863	Improvements in lamps and stoves for the application of blast heat to horticultural, agricultural and other specified purposes.
STURGE, EDWIN - - -	1882	29th July 1863	Coating or protecting metallic surfaces.
STURGEON, JOHN - - -	1292	23rd May 1863	Steam hammers.
STURGEON, JOHN - - -	2357	24th Sept. 1863	Machinery for cutting and boring coal and rocks.
STURGEON, JOHN - - -	2659	27th Oct. 1863	Machinery for cutting and boring coal, stone or other minerals.
STURGEON, JOHN - - -	3066	7th Dec. 1863	Certain improvements in machinery for cutting and boring coal, stone or other minerals.
STURGEON, THOMAS - - -	1853	24th July 1863	Chains.
STURROCK, ARCHIBALD - -	1135	6th May 1863	Locomotive engines and tenders.
SUBRA, BERNARD - - -	3015	1st Dec. 1863	Apparatus for lighting and heating. (Patented by William Clark.)
SUCKOW, EDMUND - - -	582	2nd March 1863	Certain improvements in machinery or apparatus for preparing, spinning and doubling cotton and other fibrous substances.
SUMMERS, THOMAS - - -	1146	7th May 1863	Marine engines.
SÜSSEGGER, CHRISTOPH -	2165	2nd Sept. 1863	The manufacture of a flexible translucent material or fabric to be used as a partial substitute for glass. (Patented by Moritz Pinner.)
SUTHERLAND, DOUGLAS SY- MONDS.	848	2nd April 1863	Improvements in protecting vessels of war and fortifications from the effects of projectiles.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
SUTHERLAND, DOUGLAS SY- [MONDS.	2251	12th Sept. 1863	Blasting rocks and other materials.
SUTTON, EDMUND - - -	1909	1st Aug. 1863	Fastenings for cigar cases, porte-monnaies, bags and other like articles.
SUTTON, WILLIAM HENRY -	1066	28th April 1863	Improvements in drying and cooling grain and in the machinery or apparatus employed therein. (<i>Patented by John Henry Johnson.</i>)
SWALLOW, ANDREW - - -	219	24th Jan. 1863	Certain improvements in the mode of fixing coloring matter on cotton, silk, wool and other fibres and materials, and certain improvements in finishing such like and other textile fabrics and yarns.
SWIFT, RICHARD - - -	1634	1st July 1863	An improved mode of and apparatus for manufacturing metallic joints for bedsteads, and the application of such joints to certain parts of bedsteads.
SWINBURNE, JOHN - - -	872	7th April 1863	Steam-engines and generators.
SYMINGTON, WILLIAM - -	375	11th Feb. 1863	Improvements in weaving and in apparatus therefor.
SYMINGTON, WILLIAM - -	719	18th March 1863	Improvements in the process of and apparatus used in roasting and treating coffee and other organic substances.
SYMONDS, THOMAS EDWARD -	571	28th Feb. 1863	Improvements in the construction of screw-propelled ships, and in the arrangement and mode of disconnecting, withdrawing and lifting screw propellers.
SYMONDS, THOMAS EDWARD -	587	3rd March 1863	Apparatus for steering ships.
SYMONS, WILLIAM - - -	813	28th March 1863	Barometers.
SYMONS, WILLIAM - - -	2908	19th Nov. 1863	Construction and working of railways.

T.

TAILFER, JEAN BAPTISTE -	1982	11th Aug. 1863	Road sweeping machines. (<i>Patented by William Clark.</i>)
TAIT, PETER - - -	2961	24th Nov. 1863	Improvements in apparatus used for pressing and ironing garments.
TAIT, ROBERT THOMAS - -	2747	5th Nov. 1863	Manufacture of woollen garments.
TALBOT, ROBERT - - -	1231	16th May 1863	A folding rudder for steering barges in the river Thames or coastwise.
TALLENT, THOMAS EDWARD -	311	4th Feb. 1863	Improvements in the manufacture of leather and in machinery for that purpose.
TALLERMAN, LEWIS ABRA- [HAM.	1700	8th July 1863	A new method of waterproofing and ventilating boots, shoes and slippers, for preventing wet and damp feet.
TALLERMAN, REBECCA - -	1700	8th July 1863	A new method of waterproofing and ventilating boots, shoes and slippers, for preventing wet and damp feet.
TAMET, DOMINIQUE - - -	1777	15th July 1863	Improvements in breakwaters and in the construction of rail and other ways thereon.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TAMISIER, VICTOR EMANUEL	877	7th April 1863	Improvements in polishing precious and hard stones, and in the machinery or apparatus employed therein. (Patented by John Henry Johnson.)
TANGYE, EDWARD - - -	3217	21st Dec. 1863	Improvements in the manufacture of welded iron chain and welded steel chain, and in tools to be employed in the said manufacture.
TANGYE, JOSEPH - - -	694	14th March 1863	Portable hydraulic punching machines.
TANGYE, JOSEPH - - -	2728	4th Nov. 1863	Portable hydraulic shearing and rivetting machines.
TANNAHILL, DAVID - - -	103	13th Jan. 1863	Rivet making machinery.
TANNAHILL, JOHN - - -	103	13th Jan. 1863	Rivet making machinery.
TARR, WILLIAM - - -	1077	29th April 1863	An improvement in pianofortes.
TASKER, WILLIAM - - -	83	9th Jan. 1863	Construction of harrows.
TASKER, WILLIAM - - -	1718	9th July 1863	Thrashing-machines.
TASKER, WILLIAM - - -	2700	31st Oct. 1863	Improvements in making of safety paper and in the machinery or apparatus employed therein.
TASSIN, DESIRÉ - - -	437	17th Feb. 1863	Preventing the explosion of steam-boilers.
TASTEVIN, AUGUSTE - - -	1054	27th April 1863	Improvements in twisting and doubling silk and in frames employed therein. (Patented by Richard Archibald Brooman.)
TATE, JOHN MACLEAN - - -	2276	16th Sept. 1863	An improved method of hanging the lower topsail yards of ships and other sailing vessels.
TATHAM, JOHN - - -	494	23rd Feb. 1863	Machinery or apparatus for preparing cotton and other fibrous materials for spinning.
TAYLER, JOSEPH NEEDHAM -	1781	16th July 1863	Construction of ships and other floating bodies.
TAYLOR, AMOS - - -	2224	9th Sept. 1863	Improvements in rollers to be used in machinery for spinning and manufacturing wool, cotton and other fibrous materials. (Patented by George Tomlinson Bousfield.)
TAYLOR, DOUGLAS - - -	1873	28th July 1863	Improvements in ventilating hay, corn and other ricks, and in apparatus connected therewith.
TAYLOR, EDWARD - - -	2011	14th Aug. 1863	Certain improvements in machinery or apparatus for churning.
TAYLOR, FRANCIS - - -	1201	13th May 1863	Machinery for weaving, sizing, dressing and dyeing.
TAYLOR, GEORGE - - -	1904	1st Aug. 1863	Improvements in shaping boiler and other plates, and in apparatus employed therein.
TAYLOR, GEORGE - - -	3001	30th Nov. 1863	Machinery for shaping the edges of boiler and other plates.
TAYLOR, HENRY - - -	2178	3rd Sept. 1863	Improvements applicable to paddle and other propelling wheels for navigable vessels.
TAYLOR, HENRY DYSON - -	675	12th March 1863	Improvements in finishing woollen, worsted and other fabrics, and in machinery or apparatus to be used therein.
TAYLOR, JAMES - - -	2559	20th Oct. 1863	Machinery or apparatus for opening, cleaning and mixing cotton or other fibrous materials.
TAYLOR, JOHN - - -	683	13th March 1863	Fire bars and bearers.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TAYLOR, JOHN, JR. - - -	804	27th March 1863	Construction and arrangement of rain water pipes for buildings.
TAYLOR, JOHN WILLIAM -	675	12th March 1863	Improvements in finishing woollen, worsted and other fabrics, and in machinery or apparatus to be used therein.
TAYLOR, JOSHUA - - -	2105	26th Aug. 1863	Manufacture of soap. (Communicated by Guineppe Negro.)
TAYLOR, NATHANIEL FORTES- [CUE.	2582	21st Oct. 1863	Improvements in increasing the illuminating power of coal gas and in the means or apparatus employed therein.
TAYLOR, NATHANIEL FORTES- [CUE.	3289	29th Dec. 1863	Improvements in means or apparatus employed in increasing the illuminating power of coal gas.
TAYLOR, ROBERT - - -	16	2nd Jan. 1863	Looms for weaving.
TAYLOR, ROBERT HEATON -	3218	21st Dec. 1863	Improved apparatus for lubricating the cylinders of steam-engines.
TAYLOR, THOMAS - - -	583	2nd March 1863	The manufacture of a new or improved fabric and its application to the formation of ornaments for fire stoves and other decorative purposes.
TAYLOR, THOMAS - - -	1641	1st July 1863	Railway brakes.
TAYLOR, WILLIAM - - -	2237	11th Sept. 1863	Improvements in the manufacture of iron rods and in machinery to be employed in the said manufacture.
TAYLOR, WILLIAM EDWARD -	725	18th March 1863	Certain improvements in machinery for reeling, winding, warping and beaming yarn.
TEES, JAMES - - -	2415	2nd Oct. 1863	Packing for stuffing-boxes and pistons.
TEISSONNIÈRE, ADOLPHE -	185	21st Jan. 1863	Preparing and obtaining photogenic pictures or representations. (Patented by William Clark.)
TELESCHÉFF, NICOLAS DE -	220	24th Jan. 1863	Machinery for punching and cutting metals. (Patented by Marc Antoine François Mennons.)
TELFORD, JOHN - - -	2630	24th Oct. 1863	Improvements in working and mining of coal, minerals and earthy matters, and in the machinery, apparatus and means to be employed therein.
TEMPLEMAN, JAMES - - -	1991	12th Aug. 1863	Manufacture or production of artificial fuel.
TENAC, CHARLES LOUIS VAN -	1180	11th May 1863	A new wrought-iron railway sleeper. (Communicated by Jean Arthur Granet.)
TENAC, CHARLES LOUIS VAN -	1181	11th May 1863	Armour plates of hammered or rolled wrought iron, the whole of the rivets being protected against the direct blows from the cannon shots.
TENAC, CHARLES LOUIS VAN -	1454	11th June 1863	An improvement in railway wooden sleepers. (Communicated by Jean Arthur Granet.)
TENAC, CHARLES LOUIS VAN	1455	11th June 1863	A new or improved daily balance book with moveable or sliding tickets or slips. (Communicated by Emile Cauderon.)
TENT, WILLIAM - - -	1716	9th July 1863	Improvements in pins or hooks for suspending fabrics, dresses or parts of dresses, curtains and other articles of upholstery or apparel.
TENT, WILLIAM - - -	1768	16th July 1863	An improved mode of attaching hooks to furniture or fabrics for suspending dresses or parts of dresses, fabrics, curtains and other articles of upholstery or apparel.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TENWICK, JOHN - - -	1940	6th Aug. 1863	Self-acting valves and traps for sewers.
TERRY, ELIJAH GEORGE -	249	28th Jan. 1863	Improvements in propelling ships and vessels and in apparatus employed therein.
TESSIER, CHARLES - - -	2002	13th Aug. 1863	Safely closing doors, windows and other apertures. (Communicated by Léon Mariz and Jacques Fumet.)
TESTUZ, FRANÇOIS - - -	2798	11th Nov. 1863	Breaks applicable to railway and other carriages.
TETLOW, THOMAS - - -	2474	9th Oct. 1863	Certain improvements in machinery or apparatus for governing the speed of steam-engines.
THENEN, JEAN LOUIS - -	2845	14th Nov. 1863	Apparatus and parts of sewing-machines. (Patented by Edward Thomas Hughes.)
THERASSON, LOUIS - - -	1043	25th April 1863	Breech-loading fire-arms. (Patented by Alfred Vincent Newton.)
THÉTARD, EUGENE - - -	2759	6th Nov. 1863	Axle-boxes. (Patented by Walter Montgomerie Neilson.)
THIBAUT, PIERRE - - -	308	3rd Feb. 1863	Reflectors. (Patented by William Edward Newton.)
THIBIERGE, GERMAIN ADOLPHE	162	19th Jan. 1863	Manufacture of sulphate of soda for conversion into soda and other uses. (Patented by Richard Archibald Brooman.)
THIRLE, FERDINAND - - -	2487	10th Oct. 1863	Apparatus for purifying and increasing the illuminating power of gas.
THIERRY, JEAN BAPTISTE [PIERRE ALFRED.]	1147	7th May 1863	Improvements in the arrangement or construction of furnaces, to render the combustion of the fuel more complete and to prevent the emission of smoke therefrom.
THIRAULT, CLAUDE JOSEPH -	171	20th Jan. 1863	Coloring, bronzing and preserving iron and steel. (Patented by Henri Adrien Bonneville.)
THIRIEZ, ALFRED JULIEN -	2180	3rd Sept. 1863	An improved machine for glossing and glazing all kinds of threads. (Patented by Henri Adrien Bonneville.)
THIRIEZ, EDOUARD JULIEN -	2180	3rd Sept. 1863	An improved machine for glossing and glazing all kinds of threads. (Patented by Henri Adrien Bonneville.)
THIRIEZ, VICTOR CHARLES [JULIEN.]	2180	3rd Sept. 1863	An improved machine for glossing and glazing all kinds of threads. (Patented by Henri Adrien Bonneville.)
THOM, JAMES - - - -	3018	1st Dec. 1863	Apparatus to be employed in expressing oils and fatty matters.
THOMALLEY, ABRAHAM - -	1276	21st May 1863	Brick kilns.
THOMAS, GRIFFITH - - -	814	28th March 1863	Window shutters and window blinds.
THOMAS, GRIFFITH - - -	2384	28th Sept. 1863	Louvre shutters and Venetian blinds.
THOMAS, HENRY - - - -	1658	3rd July 1863	An improvement or improvements in candle-sticks.
THOMAS, JAMES - - - -	2103	26th Aug. 1863	Apparatus for spinning.
THOMAS, JAMES - - - -	2626	24th Oct. 1863	Gas-meter indicators.
THOMAS, JOHN - - - -	1704	8th July 1863	Treating ores and earths containing iron in order to obtain the metal therefrom.
THOMAS, JOHN - - - -	2725	4th Nov. 1863	Preparing ores and earths containing copper for smelting.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
THOMAS, RICHARD - - -	74	9th Jan. 1863	Apparatus for rendering hair "wavy."
THOMPSON, GEORGE APDAIL -	2996	30th Nov. 1863	Improvements in the manufacture of door springs, part of which said improvements are applicable to the manufacture of weighing-machines, steelyards, scale beams and other articles of like nature.
THOMPSON, GEORGE APDAIL, [the younger.	2996	30th Nov. 1863	Improvements in the manufacture of door springs, part of which said improvements are applicable to the manufacture of weighing-machines, steelyards, scale beams and other articles of like nature.
THOMPSON, GEORGE WASHINGTON. [TON.	2823	12th Nov. 1863	Gas-burners. (Patented by William Edward Newton.)
THOMPSON, JAMES - - -	1023	24th April 1863	Improvements in the manufacture of barrels for fire-arms and other descriptions of tubes, and in apparatus or machinery to be employed for that purpose.
THOMPSON, JAMES - - -	1024	24th April 1863	Machinery for punching metals.
THOMPSON, JOHN - - -	1959	7th Aug. 1863	Engines for carding cotton and other fibrous materials.
THOMPSON, NATHAN - - -	458	19th Feb. 1863	Improvements in apparatus for stopping bottles, jars and other vessels, and in tools for producing parts of such apparatus.
THOMPSON, NATHAN - - -	531	25th Feb. 1863	Machinery for sawing wood.
THOMPSON, NATHAN - - -	1791	16th July 1863	Improvements in boat building and in machinery for shaping wood therefor.
THOMPSON, NATHAN - - -	1878	29th July 1863	Improvements in apparatus for stopping the bung holes of casks and similar vessels, also in tools or implements for fixing and removing such stopping apparatus.
THOMPSON, NATHAN - - -	2223	9th Sept. 1863	Improvements in apparatus for stopping bottles, jars and other vessels, which improvements are also applicable to stopping the muzzles of fire-arms.
THOMPSON, NATHAN - - -	2784	9th Nov. 1863	Apparatus for stopping bottles and other vessels.
THOMPSON, ROBERT - - -	472	21st Feb. 1863	Apparatus for moulding.
THOMPSON, ROBERT - - -	2077	21st Aug. 1863	Machinery for planing curved, curvilinear, irregular and other forms, in iron, steel and other metals.
THOMPSON, WARREN - - -	2262	15th Sept. 1863	Electric telegraph apparatus.
THOMSON, ROBERT - - -	2273	16th Sept. 1863	An improved mixed fabric and in the application thereof to covering umbrellas and parasols.
THOMSON, ROBERT WILLIAM -	512	24th Feb. 1863	Improvements in obtaining and applying motive-power, which improvements or parts thereof are applicable for raising, forcing and measuring fluids.
THOMSON, WILLIAM - - -	1160	9th May 1863	Improvements in obtaining motive-power, which improvements are applicable in part for raising or forcing fluids into steam-boilers, tanks and other vessels.
THONGER, GILBERT - - -	2866	16th Nov. 1863	Improved modes of preventing accidents arising from the sale or use of poisons.
THORNE, THOMAS - - -	407	14th Feb. 1863	Improved apparatus for disengaging ships' boats.
THORNE, THOMAS - - -	1864	27th July 1863	Improved apparatus for disengaging ships' boats.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
THORNHILL, CHARLES - -	2183	4th Sept. 1863	A new or improved method of adapting steel or other suitable metallic wire to be used instead of animal bristles or hair in sewing boots, shoes, saddlery and leather works generally.
THORNTWHAITE, WILLIAM [HENRY.	3160	14th Dec. 1863	Improvements in the manufacture of chromate of potash, chromate of soda, and other salts of chrome and soda and potash.
THORNTON, ALBERT - -	1962	8th Aug. 1863	Apparatus used for producing looped fabrics.
THORNTON, CHRISTOPHER -	687	13th March 1863	Printing and dyeing woollen fabrics.
THORNTON, EDWIN - -	616	5th March 1863	Machinery or apparatus for preparing wool or other fibrous substances for spinning.
THORNTON, EMANUEL - -	835	1st April 1863	Looms for weaving.
THORNTON, EMANUEL - -	3175	16th Dec. 1863	Looms for weaving.
THORNTON, JAMES - -	1962	8th Aug. 1863	Apparatus used for producing looped fabrics.
THORNTON, JOHN - -	1962	8th Aug. 1863	Apparatus used for producing looped fabrics.
THORNTON, ROBERT - -	616	5th March 1863	Machinery or apparatus for preparing wool or other fibrous substances for spinning.
THORNTON, ROBERT - -	3085	8th Dec. 1863	Construction of railway and other bridges.
THORNTON, SAMUEL - -	933	14th April 1863	Machinery for carding cotton and other fibrous substances.
THORNTON, THOMAS - -	616	5th March 1863	Machinery or apparatus for preparing wool or other fibrous substances for spinning.
THORNTON, WILLIAM - -	1962	8th Aug. 1863	Apparatus used for producing looped fabrics.
THORPE, JOHN - -	2972	26th Nov. 1863	Improvements in the mode of marking patterns or designs upon gored and straight skirts and skirtings, to serve as a guide for sewing and embroidering thereon.
THUILLIER, FIRMIN NATALIS -	803	27th March 1863	Machinery for scouring wool. (Patented by Richard Archibald Brooman.)
TICE, ISAAC PETTINGILL -	881	7th April 1863	Improvements in projectiles for ordnance and in fuses therefor. (Patented by Alfred Vincent Newton.)
TICE, WILLIAM - -	2374	26th Sept. 1863	Improvements in apparatus for supplying gas to railway carriages and other moving structures, and in apparatus for manufacturing and holding gas in ships and other vessels, parts of such apparatus being also applicable for manufacturing and holding gas elsewhere.
TIETJEN, CLAUS ORTGIER -	514	24th Feb. 1863	Sewing-machines. (Patented by William Clark.)
TILDESLEY, MATTHEW - -	109	13th Jan. 1863	Manufacture of padlocks and other locks and their keys.
TILLING, GEORGE ROBERT -	2424	3rd Oct. 1863	An improved mode or method of filling tobacco pipes of an improved construction.
TILLING, GEORGE ROBERT -	3073	7th Dec. 1863	Steering gear for ships and other vessels.
TINGEY, WILLIAM - -	2135	29th Aug. 1863	Printing carpets, piled fabrics, druggets and other similar articles.
TIVNANN, RICHARD DENNIS -	340	6th Feb. 1863	Improvements in holster-boxes or boxes for screws or pins to work in, and in the manufacture thereof.
TIZARD, WILLIAM LITTELL -	614	4th March 1863	Improvements in manufacturing curved armour plates and other iron work, and in machinery or apparatus employed therein.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TOD, JAMES - - -	3097	8th Dec. 1863	An improved preparation for the treatment of flock and other furniture padding to render the same obnoxious to vermin.
TOD, WILLIAM - - -	794	26th March 1863	Improvements in portable apparatus for working drills and other instruments.
TODD, JAMES LOGAN - -	1765	14th July 1863	Improvements applicable to the rollers of machines employed for spinning fibrous materials whilst in a wet state.
TODD, JOSEPH LONGLEY -	1783	16th July 1863	Improvements in the manufacture of elastic boots and shoes, and in apparatus used therefor.
TOLHAUSEN, FREDERICK -	224	24th Jan. 1863	Looms for weaving ribbons. (Communicated by Antoine Comte.)
TOLHAUSEN, FREDERICK -	225	24th Jan. 1863	Machines for carding fibrous materials. (Communicated by Henry Bosshard.)
TOLHAUSEN, FREDERICK -	288	31st Jan. 1863	New or improved apparatus for cleaning the beams of mules and spinning frames, collecting the dust and waste thereof, and also for cleaning the flooring underneath the mule carriages. (Communicated by Edward Isler.)
TOLHAUSEN, FREDERICK -	578	2nd March 1863	Improvements in cloth blankets and other fabrics to be used in machinery for printing fabrics, paper-hangings and letter-press. (Communicated by Achille Clément.)
TOLHAUSEN, FREDERICK -	1859	25th July 1863	Manufacture of gun barrels. (Communicated by Maurice Mondon.)
TOLHAUSEN, FREDERICK -	2619	23rd Oct. 1863	An improved mechanism for regulating the working of springs. (Communicated by Georges Bradaut.)
TOLSON, WILLIAM - - -	29	3rd Jan. 1863	Certain improvements in treating or covering strip steel or other suitable material for the making of crinoline skirts and other similar purposes for which the same may be applicable, and which same treatment or covering may be used for trimming or strengthening certain parts of ladies' dresses.
TOMKINS, GEORGE - - -	534	25th Feb. 1863	Improvements in the manufacture of tin and terne plates and in the apparatus employed therein.
TOMLINSON, HENRY - - -	436	17th Feb. 1863	Stoves or fire-places for warming apartments.
TOMLINSON, JAMES - - -	671	11th March 1863	Machinery for opening twisted yarns and woven fabrics.
TOMLISON, CHARLES - - -	2492	5th Oct. 1863	Improvements in taps, cocks, hydrants or valves and apparatus connected therewith for opening, closing, regulating and facilitating and otherwise controlling the passage or flow of water, air, steam, gas and other fluids and liquids.
TONE, JOHN FURNESS - -	1475	12th June 1863	Improvements in the prevention of smoke in steam-boilers and other furnaces. (Communicated by Henry David Furness.)
TONGUE, JOHN GARRETT -	2416	2nd Oct. 1863	An improved compound reactive agent and universal mordant to be employed in the processes of dyeing and printing. (Communicated by Antonio Bozzi.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TONGUE, WILLIAM - - -	367	10th Feb. 1863	Improvements in apparatus and processes for steeping, boiling, washing, bleaching and dyeing fibrous materials or slivers, slubbings, rovings, yarns or woven fabrics of the same.
TONGUE, WILLIAM - - -	3287	29th Dec. 1863	Machinery or apparatus for softening and separating the fibres of fibrous materials.
TOOTH, WILLIAM HENRY - -	3213	19th Dec. 1863	Improvements in the manufacture of iron and steel, and in the machinery, apparatus and furnaces used therein, and for the production and application of gas to be employed in such manufacture, and the application of parts of the said apparatus to the manufacture of glass and alkali.
TOOVEY, WILLIAM - - -	1588	23rd June 1863	Photolithography, photozincography and photographic engraving on copper or steel plates or on any other suitable substances.
TOPHAM, ALFRED - - -	773	24th March 1863	Improvements in the manufacture of ornamental twist lace and in machinery used therein.
TOPHAM, JABEZ - - -	773	24th March 1863	Improvements in the manufacture of ornamental twist lace and in machinery used therein.
TOPHAM, JOSEPH - - -	773	24th March 1863	Improvements in the manufacture of ornamental twist lace and in machinery used therein.
TORNE, CHARLES - - -	1451	11th June 1863	Improvements in treating floss silk and silk waste, and in apparatus for the same and other like purposes. (Patented by Michael Henry.)
TORREY, WILLIAM AUGUSTUS	2419	2nd Oct. 1863	Lubricating the axles of railway carriages. (Communicated by Joseph Wood.)
TORRILHON, VERDIER - -	2286	17th Sept. 1863	Life belts and swimming belts. (Patented by John Henry Johnson.)
TOURNIER, BONAVENTURE -	1320	25th May 1863	Apparatus for ruling paper and other materials either alone or in combination with typographical or lithographical printing. (Patented by William Clark.)
TOURRES, JEAN MARIE . -	17	2nd Jan. 1863	Producing designs upon velvets, cloth, furniture hangings and similar materials. (Patented by Edward Thomas Hughes.)
TOVEY, SAMUEL - - -	1787	16th July 1863	Looms for weaving carpets.
TOWLSON, JOHN - - -	2438	5th Oct. 1863	Apparatus for cooling liquids.
TOWNSEND, CHARLES HENRY	106	13th Jan. 1863	Improved compositions for preventing incrustation and corrosion in steam-boilers and condensers.
TOWNSEND, ELMER - - -	155	17th Jan. 1863	Hot air engines. (Patented by George Tomlinson Bousfield.)
TOWNSEND, JOSEPH - - -	2758	6th Nov. 1863	Manufacture of nitrate of potash.
TOWNSEND, JOSEPH - - -	3137	12th Dec. 1863	Improvements in sizing or dressing and in drying fibrous materials or fabrics, and in apparatus therefor.
TOY, SAMUEL - - -	1624	18th May 1863	Machinery for making screw rivets, nails or pins.
TOZER, THOMAS - - -	3281	28th Dec. 1863	Improvements in the construction of ships and vessels of war, (also applicable to other ships and vessels) and in batteries and fortifications.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TRACHSEL, FREDERICK - -	285	31st Jan. 1863	Machinery or apparatus used in the process of distillation.
TRANter, WILLIAM - -	1862	27th July 1863	Breech-loading and other revolving fire-arms.
TRAPNELL, HENRY - - -	939	14th April 1863	Vent pegs.
TRAVIS, JOHN - - -	1384	3rd June 1863	An improved method of preventing the incrustation of earthy matter in steam-boilers, steam generators and fuel economizers.
TRÉGOMAIN, FRANÇOIS DE - -	839	1st April 1863	Improvements in preventing fermentation in alcoholic and other liquids while drawing them from their containing vessels, and in apparatus for the same. (Patented by William Clark.)
TRIBALLAT, FRANÇOIS - -	221	24th Jan. 1863	Improvements in syphons applied to draining, irrigation and other purposes, whereby they self-suspend and resume action according to requirements. (Patented by William Clark.)
TRISTRAM, WILLIAM JOHN - -	2288	17th Sept. 1863	Improvements in the construction of ships and other vessels, and in the machinery for propelling them.
TROLL, CHARLES JACQUES [ISAAC.	1814	20th July 1863	Improvements applicable to inland navigation. (Patented by William Edward Gedge.)
TROTMAN, SANDERS - - -	3030	2nd Dec. 1863	Manufacture of soap.
TROTY - - - - -	1773	15th July 1863	Figuring, ornamenting and colouring fulled and felted fabrics and articles. (Patented by Michael Henry.)
TRULOCK, RICHARD - - -	1696	8th July 1863	Breech-loading fire-arms.
TRULOCK, SAMUEL - - -	1696	8th July 1863	Breech-loading fire-arms.
TRULOCK, WILLIAM - - -	1696	8th July 1863	Breech-loading fire-arms.
TRUSTRUM, WILLIAM - - -	457	19th Feb. 1863	Manufacture of oiled silk.
TSCHIFFELI, BROTHERS - -	2078	21st Aug. 1863	Improvements in expressing and filtering oil from seeds, and liquids from other substances containing the same, and in apparatus employed therein. (Patented by Richard Archibald Broome.)
TUCHET, SUSAN - - -	3119	11th Dec. 1863	An improved roller for window blinds.
TUCKER, STEPHEN DAVIS - -	1834	5th Aug. 1863	An improved mode of and apparatus for producing stereotype plates. (Patented by Alfred Vincent Newton.)
TUCKER, STEPHEN DAVIS - -	3039	2nd Dec. 1863	Printing machinery. (Patented by William Edward Newton.)
TUCKER, WALTER HENRY - -	73	9th Jan. 1863	Improvements in locks and in the modes of connecting the knobs and spindles of the same.
TUCKER, WALTER HENRY - -	2213	9th Sept. 1863	Modes of propelling and steering vessels.
TULLY, JOHN THOMAS - - -	2823	12th Nov. 1863	Gas-burners. (Patented by William Edward Newton.)
TULPIN, ALEXANDRE FORTUNÉ	1608	26th June 1863	Machinery for stretching and drying fabrics.
TULPIN, ALFRED - - -	1608	26th June 1863	Machinery for stretching and drying fabrics.
TURCK, MICHEL - - -	1098	1st May 1863	Feed apparatus for steam-boilers. (Patented by William Grindley Craig.)
TURNBULL, ROBERT - - -	3014	1st Dec. 1863	Sheathing iron vessels and armour plated ships.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
TURNER, ARCHIBALD - -	2610	22nd Oct. 1863	Looms for weaving.
TURNER, ARCHIBALD - -	2689	30th Oct. 1863	Improvements in looms for weaving terry and cut pile fabrics, parts of which improvements are also applicable to other kinds of looms.
TURNER, ARCHIBALD - -	2691	30th Oct. 1863	Looms for weaving.
TURNER, ARCHIBALD - -	3241	22nd Dec. 1863	Looms for weaving.
TURNER, CORNELIUS - -	213	23rd Jan. 1863	Manufacture of felted fabrics.
TURNER, CORNELIUS - -	970	17th April 1863	Manufacture of felted fabrics.
TURNER, GEORGE - - -	50	6th Jan. 1863	Making leather from waste pieces of common leather.
TURNER, GEORGE - - -	345	7th Feb. 1863	Means or apparatus for mincing or cutting meat or other substances.
TURNER, HENRY - - -	127	15th Jan. 1863	Improvements in apparatus for preventing and curing blight, decay, disease and rot in potatoes.
TURNER, HENRY - - -	3111	10th Dec. 1863	Apparatus for preventing the explosion of steam-boilers.
TURNER, THOMAS - - -	1003	22nd April 1863	Making and constructing of carriage ways.
TURNER, THOMAS - - -	2929	21st Nov. 1863	An improved fire-proof floor or roof for buildings, bridges and other structures.
TURNER, WILLIAM - - -	1102	2nd May 1863	Improvements in springs to be used for railway buffers, draw hooks, and also for carrying springs of railway carriages and other vehicles.
TURNOR, MICHAEL - - -	3071	7th Dec. 1863	Improvements in pencil cases and holders for crayons and other marking, writing or drawing materials, and in boxes for holding leads for pencils, crayons and other articles.
TWADDELL, ALEXANDER - -	1563	22nd June 1863	Sizing or preparing warps.
TWELVETREES, HARPER - -	2200	7th Sept. 1863	Portable mangling and wringing apparatus.
TWILLEY, FREDERICK HENRY -	548	26th Feb. 1863	Book slides or holders.
TWINING, MARA MATILDA -	3243	23rd Dec. 1863	A new apparatus for the prevention of railway accidents.

U.

ULLMER, EDWIN - - -	3134	11th Dec. 1863	Cylinder printing machines.
ULLMER, WILLIAM - - -	3134	11th Dec. 1863	Cylinder printing machines.
ULRICH, JOHN GOTTLIEB -	2285	17th Sept. 1863	Apparatus applied to railway carriages and trains in order to obtain greater safety to passengers.
USKEE, CHARLES JULES -	97	12th Jan. 1863	Preparation of green coloring matter. (Patented by William Clark.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
V.			
VAIL, THOMAS JEFFERSON -	2250	12th Sept. 1863	Revolving fire-arms. (Patented by William Clark.)
VALENTIN, WILLIAM GEORGE	307	3rd Feb. 1863	Improvements in generating combustible gases and in the apparatus employed therefor.
VALENTINE, ELIJAH - -	2779	7th Nov. 1863	An improved machine for bending metallic pipes or spouts. (Patented by George Haseltine.)
VALKENHUYZEN, MAURICE -	1050	27th April 1863	A new caster for furniture.
VAN DER MARK, BERTRAM -	165	19th Jan. 1863	A new and improved musical instrument of the harmonica class.
VAN HEES, RICHARD EDWARD	3244	23rd Dec. 1863	Certain improvements in means to be employed for securing the ends of bands in packing "bale goods," and in machinery for manufacturing "holdfasts" to be employed for the purpose.
VAN TENAC, CHARLES LOUIS	1180	11th May 1863	A new wrought-iron railway sleeper. (Communicated by Jean Arthur Granet.)
VAN TENAC, CHARLES LOUIS	1181	11th May 1863	Armour plates of hammered or rolled wrought iron, the whole of the rivets being protected against the direct blows from the cannon shots.
VAN TENAC, CHARLES LOUIS	1454	11th June 1863	An improvement in railway wooden sleepers. (Communicated by Jean Arthur Granet.)
VAN TENAC, CHARLES LOUIS	1455	11th June 1863	A new or improved daily balance book with moveable or sliding tickets or slips. (Communicated by Emile Cauderon.)
VAN WINKLE, JOHN EDO -	1494	15th June 1863	Machinery for opening and cleaning cotton and other fibrous substances. (Patented by Henry Bernoulli Barlow.)
VANDENVINNE, FLORENT JO- [SEPH.	2710	2nd Nov. 1863	Machinery for excavating land, making cuttings and other earthworks.
VANDERFEESTEN, JEAN MICHEL	3294	29th Dec. 1863	Apparatus for heating, boiling, evaporating and distilling.
VANNER, JAMES ENGLEBURTT	1826	21st July 1863	Manufacture of umbrellas and parasols.
VANNER, JAMES ENGLEBURTT	1811	1st Aug. 1863	Manufacture of umbrellas and parasols.
VANRYMENANT, JEAN BAPTISTE	1157	8th May 1863	Tanning hides and skins. (Patented by Evariste Chamonin Boët.)
VARRNE, VINCENT PAUL [AMÉDÉE.	172	20th Jan. 1863	Apparatus for retarding and stopping railway carriages. (Patented by Michael Henry.)
VARLEY, CROMWELL FLEET- [WOOD.	3055	5th Dec. 1863	Improvements in heating, parts of the invention being applicable to other purposes.
VARLEY, SAMUEL ALFRED -	3055	5th Dec. 1863	Improvements in heating, parts of the invention being applicable to other purposes.
VASSET, PAUL JOSEPH - -	3298	30th Dec. 1863	An improved teasing machine. (Patented by William Edward Gedge.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
VASSEUR, JEAN BAPTISTE -	2696	30th Oct. 1863	Manufacture of soap. (Patented by John Henry Johnson.)
VAUGHAN, JOHN - - -	2485	10th Oct. 1863	Improved apparatus for purifying waste gases from blast and other furnaces.
VAUGHAN, JOSEPH - - -	2564	20th Oct. 1863	Improvements in the manufacture of pecks, hoes, adzes and other edge tools, and in tools to be used in the said manufacture.
VAVASSEUR, JOSIAH - - -	305	3rd Feb. 1863	Projectiles for ordnance.
VERDURE, LEWIS - - -	145	16th Jan. 1863	Improved slubs or rovings (in flax, hemp and other filamentous materials) produced by the slubbing frame and destined for fine spinning, as also for improved apparatus employed therein.
VERGNAIS, JEAN LOUIS -	431	17th Feb. 1863	Floating or life preserving coats or garments. (Patented by Estève Deville.)
VERNON, WILLIAM - - -	422	16th Feb. 1863	Packing bonnet fronts, rouches and other similar articles.
VERNON, WILLIAM - - -	704	16th March 1863	A new or improved means of apparatus for communicating signals or intelligence to or from railway trains or other similar conveyances, whether they be stationary or in motion.
VERRAN, WILLIAM - - -	2692	30th Oct. 1863	Machinery for obtaining motive-power by means of steam.
VERSMANN, FREDERICK -	915	11th April 1863	Moulding machines.
VERSTRAET, LOUIS DESKÉ -	611	4th March 1863	Improvements in the manufacture of sulphuric acid and in apparatus for the same. (Patented by William Clark.)
VIAL, LOUIS CHARLES EMILE	795	26th March 1863	Engraving upon metals. (Patented by George Davies.)
VIAN, MARIUS - - - -	2641	26th Oct. 1863	Certain compositions for preserving iron ships and other submerged iron work, from corrosion and from fouling.
VIBERT, ANTOINE - - -	475	21st Feb. 1863	Improvements in the treatment of colouring matters derived from tar, for the purpose of making them applicable for painting. (Patented by Edward Thomas Hughes.)
VICKERS, EDWARD - - -	2125	28th Aug. 1863	Manufacture of steel.
VICKERS, THOMAS, the elder -	45	6th Jan. 1863	Machinery for manufacturing bread, biscuits and other like articles.
VICKERS, THOMAS, the younger	45	6th Jan. 1863	Machinery for manufacturing bread, biscuits and other like articles.
VICKERS, THOMAS EDWARD -	2317	19th Sept. 1863	An improvement in the manufacture of cast steel tyres. (Communicated by Jacob Mayer.)
VICKERS, WILLIAM HENRY -	2742	5th Nov. 1863	A new system of fastening for doors, windows, safes, chests and other similar purposes.
VIDAL, AUGUSTE - - - -	2969	26th Nov. 1863	Certain improvements in looms for weaving. (Patented by Henry Bernoulli Barlow.)
VIDARD, JEAN BAPTISTE -	1753	14th July 1863	Certain improvements in railway carriages.
VIDARD, JEAN BAPTISTE -	1754	14th July 1863	An improved waggon or truck to be used on railways.
VIGNAUD, FRANÇOIS JULES -	561	27th Feb. 1863	Machinery or apparatus employed in the preparation or treatment of hemp and other textile materials. (Patented by John Henry Johnson.)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
VIGOUREUX, STANISLAS - -	913	10th April 1863	Machinery for preparing and printing wool and other fibres. (Patented by Henry William Ripley.)
VIGOUREUX, STANISLAS - -	1085	29th April 1863	Apparatus for printing fibrous materials. (Patented by Henry William Ripley.)
VIGOUREUX, STANISLAS - -	1750	13th July 1863	Sizing or gumming warp and weft threads. (Patented by Richard Archibald Brooman.)
VILLE, GUILLAUME - -	2724	4th Nov. 1863	Treating natural phosphates of lime for agricultural purposes.
VITU, LOUIS CÉSAR CARLIER -	746	20th March 1863	Machinery for beating and drying wool and other textile and filamentous substances. (Patented by Richard Archibald Brooman.)
VIVIAN, CHARLES - - -	1032	25th April 1863	Pulleys, capstans and other machines for raising weights and transmitting motive-power.
VOGL, MAURICE - - -	88	10th Jan. 1863	An improved fastening for bags and other articles.
VON KANIG, WILHELM ADOLPH	2332	21st Sept. 1863	Improvements in railway telegraphs and signals, and also in the permanent way and carriages, for preventing railway accidents.
VON RAPPARD, CONRAD - -	141	15th Jan. 1863	Microscopes. (Patented by William Edward Newton.)
VORUZ, JEAN SIMON, Senr. -	1925	4th Aug. 1863	Machinery or apparatus for moulding and casting hollow projectiles. (Patented by William Edward Newton.)
VOSE, RICHARD - - -	1113	4th May 1863	Springs for railway carriages and other purposes. (Patented by George Haseltine.)
VOSS, WILHELM HEINRICH [CHRISTIAN.	1094	30th April 1863	Rotatory engines. (Patented by John Henry Johnson.)
VOSS, WILHELM HEINRICH [CHRISTIAN.	2956	24th Nov. 1863	Rotatory engines. (Patented by John Henry Johnson.)
VOUILLON, FRANÇOIS - -	2586	21st Oct. 1863	An improved method of figuring and ornamenting cloths and other fabrics, and apparatus employed therein. (Patented by Emile Alcan.)
VROOMAN, HENRY - - -	2152	31st Aug. 1863	Improved machinery for sawing irregular forms of wood. (Patented by Alfred Vincent Newton.)

W.

WADDINGTON, RICHARD -	1228	16th May 1863	Combs for combing wool by machinery.
WADDINGTON, THOMAS -	1228	16th May 1863	Combs for combing wool by machinery.
WADDINGTON, WILLIAM -	1228	16th May 1863	Combs for combing wool by machinery.
WAGSTAFF, HENRY GRAHAM [WILLIAM.	1488	13th June 1863	Improved apparatus for feeding steam-boilers with water, which apparatus is also applicable for raising water.
WAILLY, CLEMENCE DE -	2362	25th Sept. 1863	An improved alipper or clog, principally intended for bath rooms.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WAILLY, MME. VEUVE LEON [DE	1395	4th June 1863	An improved method of preserving carpets from the effect of dust.
WAIN, JOHN - - - -	2017	14th Aug. 1863	Machinery or apparatus for doubling or twisting yarns or threads of cotton and other fibrous materials.
WAINSCENCK, LEONARD -	246	28th Jan. 1863	Improved machinery or apparatus for fastening by screws boots, shoes and other articles composed of leather. (Patented by William Edward Gedge.)
WAKEFIELD, OBED - -	1790	16th July 1863	Cocks or taps.
WALKER, EDMUND - -	2904	19th Nov. 1863	Windlasses.
WALKER, EDWARD ROSS -	507	24th Feb. 1863	Improvements in valves and in apparatus connected therewith.
WALKER, FRANK EMSDORFF -	411	14th Feb. 1863	Construction of breech-loading fire-arms.
WALKER, HENRY - - -	2100	25th Aug. 1863	Breech-loading fire-arms.
WALKER, JOHN - - -	1141	7th May 1863	Improvements in the construction of mechanism applicable to looms and partly to carding-engines and other machinery.
WALKER, JOHN SCHOLES -	2906	19th Nov. 1863	Machinery for preparing cotton to be spun.
WALKER, RICHARD - -	2906	19th Nov. 1863	Machinery for preparing cotton to be spun.
WALKER, ROBERT STOCKS -	1746	13th July 1863	Sheathing or coating iron ships.
WALKER, WILLIAM - -	1270	21st May 1863	Certain improvements in looms for weaving.
WALLIS, CHARLES EDWIN -	2248	12th Sept. 1863	Revolving fire-arms.
WALLIS, RICHARD - -	1408	8th June 1863	Improvements in apparatus for loading and unloading vessels, and for elevating and otherwise conveying sacks, casks and other packages, parcels or objects from one locality to another.
WALLIS, RICHARD - -	2326	21st Sept. 1863	Apparatus for loading and unloading vessels, and raising, lowering and otherwise conveying sacks, casks, agricultural produce and other objects from one locality to another.
WALLS, JOSEPH - - -	2130	28th Aug. 1863	Improvements in steam-boilers and in apparatus connected therewith.
WALMSLEY, JOHN - - -	2861	14th Nov. 1863	Machinery for pulverizing and cleaning the soil and scattering seed, guano, bone dust and other substances thereon.
WALSH, JOHN HENRY - -	406	14th Feb. 1863	Improvements in breech-loading fire-arms and in the cartridge cases to be used therewith.
WALSH, JOHN HENRY - -	1923	4th Aug. 1863	Improvements in breech-loading fire-arms and in the means of extracting cartridge cases therefrom.
WALSH, SAMUEL ARMSTRONG	467	20th Feb. 1863	An improvement in boilers for disintegrating and pulping vegetable substances. (Patented by William Clark.)
WALSH, WILLIAM - - -	1116	5th May 1863	Improvements in obtaining and purifying oxalate of soda, which improvements are also applicable to the manufacture of oxalic acid.
WALTER, ROBERT - - -	3245	23rd Dec. 1863	Certain improvements in the construction and arrangement of "safety cabs" or other like vehicles.
WALTHER, FREDERICK JAMES	3061	5th Dec. 1863	Apparatus for sustaining and lifting draught horses to prevent them falling or injuring the vehicle to which they are attached.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WALTON, FREDERICK - -	1037	25th April 1863	Improvements in the manufacture of fabrics for covering floors and other surfaces, and in the apparatus employed therein.
WALTON, FREDERICK - -	3210	19th Dec. 1863	Improvements in the manufacture of floor cloths and coverings and similar fabrics, and in pavements.
WALTON, FREDERICK - -	3252	23rd Dec. 1863	Telegraphic cables.
WALTON, NICHOLAS - -	1412	8th June 1863	Apparatus for drying and airing clothes.
WALTON, NICHOLAS - -	3128	11th Dec. 1863	Washing, wringing and mangling machines.
WALTON, WILLIAM - -	1457	11th June 1863	An improved pneumatic hammer, useful also for punching and stamping metals.
WALTON, WILLIAM HENRY -	173	20th Jan. 1863	Looms for weaving textile fabrics. (Patented by William Clark.)
WALWORTH, JAMES - -	699	14th March 1863	Machinery or apparatus for washing or cleansing and drying Egyptian wheat, beans and other kinds of grain or seeds.
WANKLYN, JAMES ALFRED -	3063	5th Dec. 1863	Production and manufacture of certain yellow and orange colors. (Communicated by Eugen Lucius.)
WANKLYN, WILLIAM - -	2660	28th Oct. 1863	Apparatus for opening and conditioning cotton and other fibrous substances.
WANKLYN, WILLIAM - -	3079	8th Dec. 1863	Construction of machinery for ginning cotton.
WANZER, RICHARD MOTT -	1605	25th June 1863	Construction of sewing-machines. (Patented by Henry Clay Lee.)
WANZER, RICHARD MOTT -	2634	24th Oct. 1863	Sewing-machines. (Patented by Benjamin Brown.)
WANZER, RICHARD MOTT -	3211	19th Dec. 1863	Machines for sewing and stitching. (Patented by Charles Tiot Judkins.)
WAPLES, RUFUS - - -	52	6th Jan. 1863	Improvements in rocket torpedos and in the apparatus for directing the flight of the same under water. (Patented by John Henry Johnson.)
WAPPENSTEIN, RUDOLPH -	1993	12th Aug. 1863	A new method of preventing the forgery of bankers' cheques and other documents, by the use of a stamp and a new apparatus whereby the issue of stamped documents is controlled.
WARD, JAMES - - -	2118	27th Aug. 1863	Diving apparatus.
WARD, JAMES TOWNSEND -	1128	6th May 1863	Carriages.
WARD, PETER - - -	3148	12th Dec. 1863	Improvements in packing pistons, piston rods and other parts of machinery, and in the preparation of material therefor.
WARD, ROBERT - - -	251	28th Jan. 1863	Locking-up or fastening forms of type or other printing surfaces.
WARD, THOMAS - - -	2004	13th Aug. 1863	Construction of numbering machines. (Patented by Marc Antoine François Mennons.)
WARDLE, ALFRED - - -	2622	23rd Oct. 1863	Smoking pipes.
WARNER, HAMILTON SHIRLEY	1659	3rd July 1863	An improved mode of and apparatus for treating or preparing megass and other substances to be used as fuel.
WAROQUIER, JEAN LOUIS DE -	2284	17th Sept. 1863	Taps. (Patented by Richard Archibald Brooman.)
WARREN, FREDERIC PELHAM	1273	21st May 1863	Attaching copper or other sheathing to iron vessels.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WARREN, THOMAS - - -	1189	12th May 1863	Glass and other furnaces or kilns.
WARRINGTON, JOHN - - -	2830	24th Oct. 1863	Improvements in the working and mining of coal, minerals and earthy matters, and in the machinery, apparatus and means to be employed therein.
WARTH, ALBIN - - -	1369	1st June 1863	An improved construction of marine spike. <i>(Patented by Alfred Vincent Newton.)</i>
WASSERBURGER, ANTON - -	2698	31st Oct. 1863	Manufacture of show-cards, window tickets and ornamental labels, as advertising mediums.
WATERMAN, HENRY - - -	2226	9th Sept. 1863	Steam-engines. <i>(Patented by Alfred Vincent Newton.)</i>
WATERS, HERVEY - - -	3251	23rd Dec. 1863	Apparatus for forging and tempering bayonet blades, files and other articles. <i>(Patented by George Tomlinson Bousfield.)</i>
WATKINS, FRANCIS - - -	2936	21st Nov. 1863	Improvements in machinery for the manufacture of bolts, nuts, spikes and rivets, and also in furnaces for heating blanks to be formed into such articles.
WATKINS, RICHARD - - -	622	5th March 1863	Steam-engines.
WATSON, ALFRED - - -	1606	25th June 1863	An improved fastening.
WATSON, ALFRED - - -	2085	22nd Aug. 1863	An improved method of and apparatus for inserting pictures in and withdrawing them from photographic albums.
WATSON, ALFRED - - -	2269	16th Sept. 1863	An improvement in hinges.
WATSON, ANDREW - - -	1779	16th July 1863	Cooking-ranges.
WATSON, EDWARD - - -	1955	7th Aug. 1863	An improved apparatus whereby screw propellers may be made to steer as well as propel, applicable also as an improved ball and socket joint.
WATSON, HORATIO - - -	244	28th Jan. 1863	Heating arrangement of stoves for drying woven fabrics.
WATSON, PETER RIGBY - -	3094	8th Dec. 1863	Apparatus used for heating and ventilating horticultural buildings.
WATSON, ROBERT GREEN - -	2469	8th Oct. 1863	An improved walking-stick umbrella.
WATSON, WILLIAM - - -	1241	18th May 1863	Improvements in the manufacture of bread and in apparatus used for the same.
WATTS, JOHN BURCHLEY - -	418	16th Feb. 1863	Manufacture of matchets and swords.
WATTS, JOHN BURCHLEY - -	954	16th April 1863	An improvement in steel sword hilts.
WATTS, JOSEPH - - -	1539	19th June 1863	Machinery or apparatus for the manufacture of malt.
WAY, JOHN THOMAS - - -	2629	24th Oct. 1863	Preparing cements and varnishes.
WAYNE, ALFRED THOMAS - -	1165	9th May 1863	An improvement or improvements in the manufacture of pens.
WAYNE, JOSEPH BLOUNT - -	2100	25th Aug. 1863	Breech-loading fire-arms.
WEARE, ROBERT - - -	1818	20th July 1863	Water-closets, commodes, slop pails and other like apparatus or utensils.
WEARE, WILLIAM SYDNEY - -	2990	28th Nov. 1863	Improvements in and applicable to watches to obtain or produce independent centre seconds.
WEATHERDON, BALDWIN - -	2529	15th Oct. 1863	A new apparatus for rubbing off or removing the dust or dirt from boots or shoes.
WEATHERDON, BALDWIN FUL- [FORD.]	2598	22nd Oct. 1863	An improved valve and valve gear for regulating the passage or flow of fluids.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WEBB, THOMAS - - -	3126	11th Dec. 1863	Improvements in engines for hauling agricultural implements and also in traction engines.
WEBB, THOMAS GEORGE -	642	6th March 1863	Manufacture of articles of pressed glass.
WEBBER, BERNARD JAMES -	971	17th April 1863	Improvements in apparatus for separating corn from the ears and for combing straw.
WEBBER, BERNARD JAMES -	2372	16th Sept. 1863	Threshing machines.
WEBSTER, CHARLES - - -	740	19th March 1863	Apparatus for the purpose of clearing out the interior of foul chimnies or flues when on fire or otherwise.
WEBSTER, JAMES - - -	1456	11th June 1863	Improvements in indurating iron and in protecting iron and steel from oxidation.
WEBSTER, JAMES - - -	2356	24th Sept. 1863	Utilizing the waste flux from galvanizing works.
WEBSTER, JOSEPH THOMAS -	2618	23rd Oct. 1863	Driving the spindles of doubling and spinning frames.
WEBSTER, RICHARDSON - -	3027	2nd Dec. 1863	Machinery or apparatus for making envelopes and other similar purposes.
WEEMS, JOHN - - -	2602	22nd Oct. 1863	Machinery, apparatus or means for drying, cleaning and cooling grain and other vegetable products.
WELCH, ALFRED PHIPPEN -	490	23rd Feb. 1863	Machinery for blocking and pressing hats and bonnets.
WELCH, ALFRED PHIPPEN -	733	18th March 1863	Improvements in bleaching and in reducing and brightening the color or tone of dyed straw plaits and straw.
WELCH, JOHN DAVIS - - -	490	23rd Feb. 1863	Machinery for blocking and pressing hats and bonnets.
WELCH, JOHN DAVIS - - -	733	18th March 1863	Improvements in bleaching and in reducing and brightening the color or tone of dyed straw plaits and straw.
WELCH, JOHN WELLINGTON -	1861	27th July 1863	Improvements in sizing and finishing fabrics and in the machinery or apparatus employed therein.
WELDON, WALTER - - -	2141	29th Aug. 1863	Apparatus for aerial navigation.
WELLS, JOHN SCOTT - - -	585	2nd March 1863	Manufacture of stockings and other looped fabrics made in knitting machines.
WELLS, JOSIAH - - -	1062	28th April 1863	A new explosive compound applicable for all the purposes for which gunpowder is or may be used.
WELLS, WILLIAM - - -	621	5th March 1863	Improvements in horse-shoes and in the method of fastening the same.
WELLS, WILLIAM - - -	1445	10th June 1863	Apparatus for obtaining artificial light from volatile liquids or fluids.
WERGE, JOHN - - -	670	11th March 1863	Apparatus for indicating any regulated maximum or minimum degree of temperature. (<i>Communicated by Alexander Ross.</i>)
WEST, BENJAMIN - - -	562	28th Feb. 1863	An improvement or improvements in metallic pens.
WEST, WALTER - - -	840	1st April 1863	Working railway signals.
WEST, WILLIAM - - -	691	14th March 1863	Valves.
WESTFIELD, ALBERT - - -	2430	5th Oct. 1863	Motive engines worked by water, steam or other motive power. (<i>Patented by Christopher Brakell, William Hoeckl and William Günther.</i>)

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WESTHEAD, MARCUS BROWN -	1486	13th June 1863	Improvements in adapting tapes, ribbons and other such narrow fabrics or thread to surfaces from which they may be unwound or upon which they may be re-wound.
WESTHEAD, MARCUS BROWN -	2940	21st Nov. 1863	Improvements in adapting or arranging tapes and other such narrow fabrics and threads for use.
WESTHROP, THEOPHILUS -	2108	26th Aug. 1863	Machinery or apparatus for preparing cut rope strands or yarn for carding into oakum.
WESTMACOTT, PERCY GRAHAM [BUCHANAN.]	1710	9th July 1863	Improvements in cranes and in dock gate and other crabs.
WESTMACOTT, PERCY GRAHAM [BUCHANAN.]	1712	9th July 1863	Hydraulic engines.
WESTON, JOHN - - -	2202	7th Sept. 1863	Improvements in machinery for morticing, drilling, dovetailing and cutting wood, and in tools to be used for morticing.
WESTON, THOMAS - - -	2787	10th Nov. 1863	Printing presses.
WESTON, THOMAS ALDRIDGE	263	29th Jan. 1863	A new or improved coupling and break for transmitting or regulating or arresting motion.
WESTON, THOMAS ALDRIDGE	974	18th April 1863	Ratchet levers.
WESTON, THOMAS ALDRIDGE	1032	25th April 1863	Improvements in pulleys, capstans and other machines for raising weights and transmitting motive-power.
WESTON, WILLIAM THOMAS	318	4th Feb. 1863	An improved spring catch or fastening applicable to windows and other useful purposes.
WEYHER, CHARLES - - -	3186	17th Dec. 1863	Apparatus for indicating the level of water in steam-boilers. (Patented by William Clark.)
WHALEY, WILLIAM - - -	216	24th Jan. 1863	Steam hammers and other engines driven by steam.
WHEELER, ELBRIDGE - - -	1502	16th June 1863	An improved apparatus for shaping plastic materials and hot but not melted metals, by means of pressure, percussion or rolling. (Patented by Francis Stanton Williams.)
WHEELER, JAMES - - -	1983	11th Aug. 1863	Perfuming of gloves.
WHEELER, JESSE BROWN -	737	19th March 1863	Machinery for drying and cooling grain and seeds. (Patented by Henry Osburne Haughton.)
WHEELER, NATHANIEL - -	1996	12th Aug. 1863	An improved lamp for burning coal oil and other similar hydro-carbons, without the aid of a draught chimney. (Patented by William Clark.)
WHIGHT, GEORGE - - -	2460	7th Oct. 1863	Washing apparatus. (Communicated by William Bamford.)
WHIPPLE, CULLEN - - -	1643	1st July 1863	A new and useful machine for preparing cotton, wool or other fibrous material. (Patented by George Tomlinson Bousfield.)
WHIPPLE, JOHN ADAMS - -	2252	12th Sept. 1863	Apparatus for supporting photograph cameras.
WHITAKER, SAMUEL - - -	396	13th Feb. 1863	Improvements in indicating the positions or conditions of railway signals and points, and in the apparatus employed therein.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WHITAKER, WILLIAM - -	367	10th Feb. 1863	Improvements in apparatus and processes for steeping, boiling, washing, bleaching and dyeing fibrous materials or slivers, slubbings, rovings, yarns or woven fabrics of the same.
WHITAKER, WILLIAM - -	3287	29th Dec. 1863	Machinery or apparatus for softening and separating the fibres of fibrous materials.
WHITE, HENRY THOMAS -	1344	28th May 1863	Hats, caps and other coverings for the head.
WHITE, JOHN - - -	776	25th March 1863	Improvements in protecting the surface of the iron and steel of ships and all other structures, except that of cables, tanks and boilers, while in contact with water, from decay, in preventing or abating, and in facilitating the removal of foulness of ships' bottoms, and in giving a capacity of increased speed to ships.
WHITE, JOHN HAINES - -	2214	9th Sept. 1863	An improved composition or coating for the protection and preservation of surfaces of iron, wood and other materials.
WHITE, JOSEPH - - -	1835	22nd July 1863	Improvements in pyramid and other cans or feeders for oil and other liquids.
WHITE, STEPHEN - - -	26	3rd Jan. 1863	Improvements in the method of and apparatus for purifying, bleaching and refining oils and oily and fatty matters.
WHITE, THOMAS LOYNES -	3064	7th Dec. 1863	An improved apparatus for checking cash taking at intervals.
WHITE, WILLIAM - - -	1236	16th May 1863	Machinery or apparatus for the manufacture of looped fabrics.
WHITE, WILLIAM - - -	2349	24th Sept. 1863	Means or apparatus for coating wood and other surfaces.
WHITEHEAD, HENRY - -	498	24th Feb. 1863	Improvements in the manufacture and securing of cutlery handles and machinery employed therein.
WHITEHEAD, JAMES - -	169	20th Jan. 1863	Improved hydraulic machinery for raising water in mines, wells and other places.
WHITEHEAD, JAMES - -	1239	16th May 1863	Improvements in motive-power machinery especially adapted for raising and forcing water and other liquids or fluids, parts of said improvements being applicable to steam-engines and other machines fitted with pistons.
WHITEHEAD, JAMES - -	2289	17th Sept. 1863	Pneumatic motive-power machinery.
WHITEHEAD, JAMES HEYWOOD	2235	10th Sept. 1863	Manufacture of felted fabrics.
WHITEHEAD, JOHN - - -	2474	9th Oct. 1863	Certain improvements in machinery or apparatus for governing the speed of steam-engines.
WHITEHEAD, WILLIAM - -	498	24th Feb. 1863	Improvements in the manufacture and securing of cutlery handles and machinery employed therein.
WHITEHOUSE, EDWIN - -	2442	6th Oct. 1863	Certain improvements in the manufacture of wrought iron shackles.
WHITELAW, ALEXANDER -	3295	30th Dec. 1863	Treating brine from salted flesh or fish for the obtainment of useful products therefrom.
WHITELEY, WILLIAM - -	1192	12th May 1863	Looms for weaving.
WHITLEY, JOSEPH - - -	1008	23rd April 1863	Manufacture of metals.
WHITLEY, JOSEPH - - -	2556	19th Oct. 1863	Permanent way of railways.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WHITTAKER, JAMES - -	1868	27th July 1863	Improvements in engines for obtaining motive-power by steam, air or any other vapour.
WHITTLE, WILLIAM - -	615	5th March 1863	Machinery for the manufacture of nails.
WHITTLES, HENRY - -	645	9th March 1863	Improvements in machinery or apparatus for collecting the condensed steam or waste water from places where steam is used and returning the same to the boiler.
WHITWORTH, JOSEPH - -	51	6th Jan. 1863	Ordnance.
WHITWORTH, JOSEPH - -	2743	5th Nov. 1863	Treatment and application of steel and homogeneous metal.
WHITWORTH, THOMAS SCHOFIELD.	1290	22nd May 1863	Machinery or apparatus for roving, spinning and doubling cotton and other fibrous materials.
WHITWORTH, WILLIAM - -	2137	29th Aug. 1863	Improvements in or applicable to the furnaces of steam-boilers.
WHYTEHEAD, WILLIAM KELD	2783	9th Nov. 1863	Construction of ships and vessels. (Patented by George Tomlinson Bousfield.)
WIARD, NORMAN - - -	484	21st Feb. 1863	Improvements in ordnance and artillery, and means of operating and mounting the same, and in projectiles and instruments therefor.
WIBBERLEY, JOHN - - -	1087	30th April 1863	Machinery or apparatus for winding cotton, silk, wool or other threads on spools or reels.
WICKENS, HENRY - - -	1190	12th May 1863	Reaping and mowing machines. (Communicated by Richard Lamb Allen.)
WICKENS, HENRY - - -	2777	7th Nov. 1863	Lamps for burning oils. (Communicated by Florimond Baudoin.)
WIESE, JULES - - -	1635	1st July 1863	An improved waterproof material. (Patented by William Snell.)
WIGFALL, WILLIAM - - -	2888	18th Nov. 1863	An improved explosive compound to be used in the manufacture of cartridges, and an improved mode of manufacturing cartridges therewith.
WIGHTMAN, JOHN - - -	911	10th April 1863	Horse rakes.
WIGZELL, MONTAGUE - -	364	10th Feb. 1863	Machinery or apparatus and method to be used in the manufacture of every description of candles, tapers and other lights.
WILD, ANNE CATHERINE [VEUVE DURST.	1794	17th July 1863	An improved mode of producing raised patterns, figures or devices on felt hats, caps and bonnets.
WILD, WILLIAM CHARLES -	720	18th March 1863	A new and improved mode of inlaying gold and other metals in glass, and in a composition suitable for the manufacture of jewellery and other ornaments, buttons and other similar articles.
WILDE, HENRY - - -	516	25th Feb. 1863	Electro-magnetic telegraphs.
WILDE, HENRY - - -	736	19th March 1863	Construction of steam-boilers.
WILDE, HENRY - - -	1200	13th May 1863	Electro-magnetic telegraphs.
WILDE, HENRY - - -	3006	1st Dec. 1863	Improvements in the construction and working of electric telegraphs and in apparatus connected therewith, partly applicable to other purposes.
WILKINS, GEORGE - - -	1980	5th Aug. 1863	A new and improved means of railway signalling.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WILKINS, JOHN - - -	268	29th Jan. 1863	Machinery employed in the manufacture of looped fabrics.
WILKINS, WILLIAM CRANE -	242	27th Jan. 1863	Lamps.
WILKINS, WILLIAM CRANE -	1125	5th May 1863	Lamps.
WILKINSON JOHN - - -	1127	6th May 1863	Certain improvements in power looms for weaving.
WILKINSON, THOMAS - -	125	14th Jan. 1863	Manufacture of tubular steam-boilers.
WILKINSON, THOMAS - -	425	16th Feb. 1863	Machinery or apparatus for singeing pigs.
WILKINSON, WILLIAM - -	3067	7th Dec. 1863	An improved mode of manufacturing joints and catches for brooches and other articles of jewellery.
WILKS, EDWIN - - -	1562	22nd June 1863	Improvements in making portmanteaus and trunks of various shapes and sizes, light, strong, airtight and watertight, capable of bearing immersion in water without injuring the contents.
WILLANS, JACOB GEOGHEGAN	1981	11th Aug. 1863	Manufacture of iron.
WILLCOX, CHARLES HENRY -	2645	26th Oct. 1863	Sewing-machines. (Patented by James Willcox.)
WILLCOX, JAMES - - -	2645	26th Oct. 1863	Sewing-machines. (Communicated by Charles Henry Willcox.)
WILLÈME, FRANÇOIS - -	256	28th Jan. 1863	Means and apparatus for copying and reproducing sculpture and other objects of art. (Patented by William Clark.)
WILLETT, THOMAS WILLIAM -	703	16th March 1863	Means for reefing and furling square sails of ships and vessels from the decks thereof.
WILLETT, SAMUEL CLEMENT	3072	7th Dec. 1863	Breech-loading fire-arms.
WILLIAMS, CHARLES HANSON [GREVILLE.]	138	15th Jan. 1863	Manufacture of colouring matters.
WILLIAMS, CHARLES HANSON [GREVILLE.]	271	29th Jan. 1863	Manufacture of red colouring matters.
WILLIAMS, CHARLES HANSON [GREVILLE.]	1173	9th May 1863	Manufacture of coloring matters.
WILLIAMS, FRANCIS STANTON	1502	16th June 1863	An improved apparatus for shaping plastic materials and hot but not melted metals, by means of pressure, percussion or rolling. (Communicated by Elbridge Wheeler.)
WILLIAMS, HENRY - - -	772	24th March 1863	Machinery or apparatus for dressing slates.
WILLIAMS, HENRY GEORGE -	355	9th Feb. 1863	An improved machine for crushing and amalgamating auriferous quartz, and pulverizing and washing ores.
WILLIAMS, PETER - - -	932	13th April 1863	Machinery for opening, cleaning, carding and grinding or sharpening cards used in preparing cotton and other fibrous materials.
WILLIAMS, THOMAS - - -	1266	20th May 1863	Paper spools or tubes used in spinning and doubling machines.
WILLIAMS, THOMAS - - -	1632	1st July 1863	Improved arrangements for effecting or aiding in effecting the locomotion of land carriages or vehicles and floating vessels by manual power or other primary motive agency.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WILLIAMS, THOMAS - -	2134	29th Aug. 1863	Machinery or apparatus for crushing and flattening the stalks of tobacco and other substances.
WILLIAMS, THOMAS - -	2136	29th Aug. 1863	Machinery or apparatus for steaming and opening cotton and other fibrous materials.
WILLIAMS, THOMAS - -	2880	14th Nov. 1863	Paper spools or tubes used in spinning and doubling machines.
WILLIAMS, WELLINGTON -	1707	9th July 1863	Shirt collars and boys' and ladies' collars.
WILLIAMS, WILLIAM - -	2932	21st Nov. 1863	Machinery for making bricks and other like articles.
WILLIAMS, WILLIAM MATTIEU	2886	18th Nov. 1863	Improvements in apparatus for the distillation of coal and peat and such other substances as are or may be used for the manufacture of solid and liquid volatile hydro-carbons, or for the manufacture of the said hydro-carbons and coke.
WILLIAMS, WILLIAM RICHARD	1592	24th June 1863	Wet gas-meters.
WILLIAMSON, JOSEPH - -	606	4th March 1863	A new or improved method of purifying the noxious vapours or gases given off from night soil or other similar substances during the heating, drying or evaporating of such substances.
WILLIAMSON, STEPHEN - -	568	28th Feb. 1863	Construction of furnaces.
WILLIAMSON, WELBURN -	3049	4th Dec. 1863	Wringing machines.
WILMOT, SAMUEL RUSSEL -	2009	14th Aug. 1863	Hand trucks. (Communicated by Alexander Douglas.)
WILSON, ALFRED - - -	636	6th March 1863	The better and more commodious manufacture of all kinds of easy, lounging and invalid chairs, seats or settles.
WILSON, ALFRED - - -	2997	30th Nov. 1863	A new or improved self-acting time register.
WILSON, CHARLES GEORGE -	2056	18th Aug. 1863	Machinery for pressing cotton and for crushing and pressing other substances, the said machinery being adaptable for locomotion on railways or on common roads.
WILSON, DAVID - - -	1376	2nd June 1863	Presses.
WILSON, EDWARD - - -	3220	21st Dec. 1863	An improved method of feeding locomotive and other boilers, applicable also to the raising of water and other liquids.
WILSON, EDWARD BROWN -	291	31st Jan. 1863	Improvements in supplying air, gases, steam or fluids to iron and other furnaces and to engines and vessels requiring such supply, and in the apparatus employed therein.
WILSON, EDWARD BROWN -	298	2nd Feb. 1863	Manufacture of gas.
WILSON, EDWARD BROWN -	522	25th Feb. 1863	An improvement or improvements in the manufacture of an alloy or alloys of titanium and iron.
WILSON, EDWARD BROWN -	625	5th March 1863	An improvement or improvements in the manufacture of steel and in the apparatus employed therein.
WILSON, EDWARD BROWN -	843	1st April 1863	Improvements in the manufacture of iron and steel and other metals, and in the apparatus employed therein.
WILSON, EDWARD BROWN -	1238	16th May 1863	Improvements in the manufacture of iron and other metals and in the apparatus employed therein, parts of which are applicable for other purposes where high temperatures are employed.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WILSON, EDWARD BROWN -	2012	14th Aug. 1863	Blast furnaces.
WILSON, EDWARD BROWN -	2375	26th Sept. 1863	Improvements in furnaces and fire-places applicable to the heating of steam-boilers and other purposes.
WILSON, EDWARD BROWN -	2425	3rd Oct. 1863	Improvements in the manufacture of iron and other metals and in the apparatus employed therein, parts of which are applicable for other purposes where high temperatures are employed, and also for ventilation.
WILSON, EDWARD BROWN -	2946	23rd Nov. 1863	Presses.
WILSON, GEORGE - - -	748	20th March 1863	An improvement in the manufacture of springs.
WILSON, GEORGE - - -	996	21st April 1863	Machinery or apparatus employed in the manufacture of looped fabrics.
WILSON, GEORGE - - -	2997	30th Nov. 1863	A new or improved self-acting time register.
WILSON, GEORGE - - -	3058	5th Dec. 1863	Looms for weaving.
WILSON, GEORGE FERGUSON	1800	17th July 1863	Manufacture of soap.
WILSON, HENRY - - -	666	11th March 1863	Machinery for shaping wood.
WILSON, HENRY - - -	2594	22nd Oct. 1863	An improved lubricator for steam-engines.
WILSON, HUGH BOWLSBY -	508	24th Feb. 1863	Construction of war and merchant ships.
WILSON, JOHN - - -	2706	31st Oct. 1863	Thrashing machines.
WILSON, JOHN CHARLES -	1468	12th June 1863	Machinery for reducing cocoa nut kernels and other substances to a state of pulp.
WILSON, JOHN CHARLES -	1469	12th June 1863	An improved machine for unhusking rice and other seeds.
WILSON, JOHN CHARLES -	2650	27th Oct. 1863	A new mode of mounting ordnance and the machinery and apparatus composing the same, also the machinery and apparatus for working said ordnance, and for loading, cleaning and counteracting its recoil when fired.
WILSON, JOHN CHARLES -	2844	14th Nov. 1863	Cotton gins on the roller principle.
WILSON, JOHN CHARLES -	3188	12th Dec. 1863	Machinery for unhusking rice and other seeds.
WILSON, JOHN HAYS - -	2229	10th Sept. 1863	Improvements in the side lights for ships and other navigable vessels, and in the manufacture of the same.
WILSON, JOHN HAYS - -	2968	25th Nov. 1863	Improvements applicable to ships' and other lift pumps.
WILSON, SAMUEL - - -	1162	9th May 1863	Improvements in hoops or bands for fastening bales and in machinery or apparatus for making the same.
WILSON, THOMAS - - -	2964	25th Nov. 1863	Presses for cutting, perforating and shaping metals.
WILSON, THOMAS - - -	3159	14th Dec. 1863	Improvements in breech-loading fire-arms, projectiles and cartridges, and in tools or apparatus for the manufacture of projectiles.
WILSON, WILLIAM - - -	3023	2nd Dec. 1863	Improvements in generating gas for illuminating and other purposes, when made by passing atmospheric air over or through volatile oils, and treating such gas and the gas made from coal or cannon after leaving the generators, so as to improve the heating and illuminating qualities thereof, and in the apparatus for effecting the same.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WILSON, WILLIAM - - -	3278	28th Dec. 1863	A new method of decorating or ornamenting register or other grate fronts and cheeks, hearths of fire-places, fenders, and the exterior surfaces of hot air stoves and coil cases enclosing hot water or steam pipes.
WILSON, WILLIAM ASHLEY -	539	26th Feb. 1863	Furnace fire-grates.
WILSON, WILLIAM ASHLEY -	2206	8th Sept. 1863	Furnace fire-grates.
WILSON, WILLIAM NEWTON -	1016	24th April 1863	Machinery for sewing and stitching.
WILSON, WILLIAM VIRGO -	1713	9th July 1863	Manufacture of red colouring matter.
WIMPENNY, THOMAS - - -	1768	15th July 1863	Certain improvements in machinery or apparatus for roving and spinning wool, cotton and other fibrous substances.
WINANS, THOMAS - - -	1555	20th June 1863	Construction of steam vessels.
WINANS, THOMAS - - -	1556	20th June 1863	Couplings for propelling shafts of ships or vessels.
WINANS, THOMAS - - -	1557	20th June 1863	Adapting propellers for propelling ships or vessels for ocean navigation.
WINANS, THOMAS - - -	1558	20th June 1863	Adapting propellers for propelling ships or vessels for ocean navigation.
WINANS, THOMAS - - -	1570	22nd June 1863	Adapting propellers for propelling ships or vessels.
WINANS, THOMAS - - -	1571	22nd June 1863	Adapting propellers for propelling ocean steam vessels.
WINANS, THOMAS - - -	1572	22nd June 1863	Construction or arrangement of the working parts of engines for actuating the propelling shafts of steam vessels.
WINANS, THOMAS - - -	1582	23rd June 1863	Steam-boilers
WINANS, THOMAS - - -	1583	23rd June 1863	Improvements in lessening the friction of the rubbing surfaces of the slide valves of engines and of the journals of shafts.
WINANS, THOMAS - - -	1584	23rd June 1863	Arrangement of apparatus for superheating steam in steam-boilers.
WINANS, THOMAS - - -	3100	8th Dec. 1863	Adapting screw propellers for propelling ships or vessels for ocean navigation.
WINANS, THOMAS - - -	3231	21st Dec. 1863	Means of and apparatus for trimming ships or vessels.
WINANS, WILLIAM LOUIS -	1555	20th June 1863	Construction of steam vessels.
WINANS, WILLIAM LOUIS -	1556	20th June 1863	Couplings for propelling shafts of ships or vessels.
WINANS, WILLIAM LOUIS -	1557	20th June 1863	Adapting propellers for propelling ships or vessels for ocean navigation.
WINANS, WILLIAM LOUIS -	1558	20th June 1863	Adapting propellers for propelling ships or vessels for ocean navigation.
WINANS, WILLIAM LOUIS -	1570	22nd June 1863	Adapting propellers for propelling ships or vessels.
WINANS, WILLIAM LOUIS -	1571	22nd June 1863	Adapting propellers for propelling ocean steam vessels.
WINANS, WILLIAM LOUIS -	1572	22nd June 1863	Construction or arrangement of the working parts of engines for actuating the propelling shafts of steam vessels.
WINANS, WILLIAM LOUIS -	1582	23rd June 1863	Steam-boilers.
WINANS, WILLIAM LOUIS -	1583	23rd June 1863	Improvements in lessening the friction of the rubbing surfaces of the slide valves of engines and of the journals of shafts.
WINANS, WILLIAM LOUIS -	1584	23rd June 1863	Arrangement of apparatus for superheating steam in steam-boilers.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WINANS, WILLIAM LOUIS -	3100	8th Dec. 1863	Adapting screw propellers for propelling ships or vessels for ocean navigation.
WINANS, WILLIAM LOUIS -	3231	21st Dec. 1863	Means of and apparatus for trimming ships or vessels.
WINCHCOMB, HENRY - -	1999	13th Aug. 1863	Street pillar letter boxes and bags for the reception of post letters.
WINCHESTER, OLIVER FISHER	1223	15th May 1863	Repeating fire-arms. (Patented by William Clark.)
WINDER, ARNOLD - - -	2023	15th Aug. 1863	Certain improvements in apparatus for governing or regulating the speed of engines. (Patented by Edward Scott.)
WINDUS, THOMAS - - -	2574	20th Oct. 1863	Machinery for bending plates for iron ships and other like purposes.
WINKLE, JOHN EDO VAN -	1494	15th June 1863	Machinery for opening and cleaning cotton and other fibrous substances. (Patented by Henry Bernoulli Barlow.)
WINSBORROW, JOHN - -	2912	20th Nov. 1863	Improvements in the construction of dry gas meters and in the means or apparatus employed therein.
WINTER, JOHN GENO - -	146	16th Jan. 1863	Improvements in vessels in which to cool and transport fatty or oleaginous matters such as tallow, lard, palm oil and the like.
WINTER, JOHN GENO - -	1388	3rd June 1863	Improvements in steam fire-engines. (Communicated by Joseph Garnett Larned.)
WINTOUR, THOMAS FITZ [GERALD.	2712	2nd Nov. 1863	Ventilators and fire guards.
WITHERS, GEORGE - - -	417	16th Feb. 1863	Locks.
WITHERS, THOMAS - - -	417	16th Feb. 1863	Locks.
WITTENBERG, JULIUS LORENZ	3227	21st Dec. 1863	Improvements in wrappers or envelopes for receiving or enclosing papers and various other articles.
WITTMANN, FERDINAND -	279	30th Jan. 1863	Cones or forms for moulding refined sugar. (Patented by William Edward Gedge.)
WOLF, EDWARD - - -	1520	17th June 1863	A new or improved wrapper or wrapping material for use in smoking tobacco.
WOOD, FREDERICK JOHN -	2604	22nd Oct. 1863	Improvements in the manufacture of metallic casks, bottles and other similar vessels, and in machinery employed therein.
WOOD, HENRY - - -	1478	13th June 1863	An improved mode of oiling journals or axles. (Patented by George Davies.)
WOOD, ISAAC - - -	2561	20th Oct. 1863	Manufacture of copper rollers used for printing calico or other materials.
WOOD, JAMES - - -	2474	9th Oct. 1863	Certain improvements in machinery or apparatus for governing the speed of steam-engines.
WOOD, JOHN - - -	793	26th March 1863	An improved application of embroidery to cotton printed fabrics.
WOOD, JOHN BLAND - -	1171	9th May 1863	Improvements applicable to the defending of ships or vessels and forts when armour plating is employed.
WOOD, JOSEPH - - -	2419	2nd Oct. 1863	Lubricating the axles of railway carriages. (Patented by William Augustus Torrey.)
WOOD, NICHOLAS - - -	202	22nd Jan. 1863	Apparatus for grinding, smoothing and polishing plate glass.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WOOD, STEPHEN - - -	2420	2nd Oct. 1863	Revolver fire-arms. (Communicated by George Tomlinson Bousfield.)
WOOD, WALTER ABBOTT -	78	9th Jan. 1863	Reaping and mowing machines. (Patented by David Ball Parsons.)
WOOD, WALTER ABBOTT -	598	3rd March 1863	Reaping and mowing machines. (Patented by David Ball Parsons.)
WOOD, WILLIAM - - -	404	14th Feb. 1863	Certain improvements in cutting or producing screws or threads, and in apparatus connected therewith.
WOOD, WILLIAM - - -	479	21st Feb. 1863	Improvements in the process of manufacturing pomfret or liquorice cakes, rolls, sticks and pipes, and other similar articles of confectionery.
WOOD, WILLIAM - - -	667	11th March 1863	Manufacture and ornamentation of pomfret or liquorice cakes, rolls, sticks and pipes, and other similar articles of confectionery.
WOOD, WILLIAM - - -	1762	14th July 1863	"Warping" or covering land, bog or peat with earth or soil.
WOOD, WILLIAM ANSON -	3095	8th Dec. 1863	Reaping and mowing machines. (Patented by William McIntyre Cranston.)
WOODBURY, SETH - - -	643	6th March 1863	An improved construction of elastic carriage wheel. (Patented by Alfred Vincent Newton.)
WOODFORD, JOHN WYMEN -	1034	25th April 1863	Apparatus for steering and manoeuvring ships and vessels.
WOODFIELD, JOHN VAUX -	1939	6th Aug. 1863	Machinery for the manufacture of rivets.
WOODRUFF, SAMUEL - - -	3103	9th Dec. 1863	An invention, firstly, for casting steam cylinders of steam-engines in the form of a segment of a cylindrical ring or circle, and secondly, for the machine for boring them truly cylindrical and retaining the line of the bore on the curve of a true circle. (Patented by William Henry Cole.)
WOODS, HAMILTON - - -	1916	3rd Aug. 1863	Apparatus used for regulating the temperatures during the process of fermentation in the "union cask," "tunning cask" or "cleansing cask."
WOODS, JUSTUS OSMAN -	2627	24th Oct. 1863	A new attachment to coverings for the head and to other articles of dress, for lighting matches. (Patented by George Haseltine.)
WOOF, WILLIAM - - -	2351	24th Sept. 1863	Improvements in implements for tilling the soil, and in means of drawing ploughs and other implements for tilling through the land.
WORMS, HENRY - - -	1081	29th April 1863	Apparatus for elevating guns.
WORRALL, JOHN MAYO - -	3173	16th Dec. 1863	Certain improvements in apparatus or mechanism for producing a superior finish upon woven fabrics, which is more particularly applicable to those termed "beaver-teens" or "imperials."
WORRALL, JOSEPH HARDMAN	779	25th March 1863	Certain improvements in the method of producing surfaces in imitation of woods and in printing therefrom.
WORSSAM, CHARLES - - -	72	9th Jan. 1863	An improved lithographic press.

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WORTHINGTON, JOSEPH - -	2176	3rd Sept. 1863	An improved method of making and inlaying encaustic tiles or other plastic articles and substances.
WORTHINGTON, WILLIAM? [SAVAGE.]	2483	9th Oct. 1863	Improvements in amalgamating and separating gold and silver from quartz and earths containing the same, and in apparatus employed therein. (Patented by Richard Archibald Brooman.)
WEAY, JOSEPH - - -	3084	8th Dec. 1863	Certain improvements in the method of manufacturing spindles and "skewers" to be employed in spinning fibrous substances, and in apparatus connected therewith.
WREN, BENJAMIN - - -	727	18th March 1863	Cleansing and treating certain descriptions of wheat and other grain.
WREN, HENRY - - -	1261	20th May 1863	Construction of self-lubricating bearings for shafts and axles.
WRIGHT, CHARLES EDWARDS -	2928	21st Nov. 1863	Improvements in apparatus for clipping or binding together letters, music and other loose sheets.
WRIGHT, DAVID PITCAIRN -	1769	15th July 1863	Attaching the burners of paraffin and other lamps to the founts or oil containers.
WRIGHT, HOLMES - - -	2232	10th Sept. 1863	Improvements in glazing and rolling press papers, pasteboard and other paper requiring to be glazed or rolled, and in the means or apparatus employed therein.
WRIGHT, JOHN - - -	2548	17th Oct. 1863	Machinery for cutting railway sleepers to receive railway chairs.
WRIGHT, JOHN - - -	3152	14th Dec. 1863	Manufacture of superphosphate of lime.
WRIGHT, JOHN WILLIAM -	2232	10th Sept. 1863	Improvements in glazing and rolling press papers, pasteboard and other paper requiring to be glazed or rolled, and in the means or apparatus employed therein.
WRIGHT, JOSEPH - - -	3105	9th Dec. 1863	Furnaces, fire grates and fire bars.
WRIGHT, THOMAS - - -	179	21st Jan. 1863	Improvements in the manufacture of cast iron pipes and the apparatus employed for that purpose. (Communicated by Wm. Hainsworth.)
WRIGLEY, GEORGE - - -	398	13th Feb. 1863	Machines for spinning and doubling.
WRIGLEY, JOHN LEES - -	354	9th Feb. 1863	Certain improvements in carding-engines. (Patented by Benjamin Dobson and Edward Barlow.)
WRIGLEY, JOSEPH - - -	2137	29th Aug. 1863	Improvements in or applicable to the furnaces of steam-boilers.
WRIGLEY, THOMAS - - -	1479	13th June 1863	Machinery or apparatus for filtering or cleansing water or other fluids.
WÜNSCH, EDWARD ALFRED -	607	4th March 1863	Improvements in treating sea weed and in apparatus therefor.
WYCHERLEY, HENRY - - -	378	11th Feb. 1863	Certain improvements in the construction of and mode of applying wings or dirt screens over the wheels of carriages.
WYDLER, ALBERT - - -	686	13th March 1863	Printing and dyeing woollen fabrics.
WYLDÉ, FÉDOR DE - - -	752	20th March 1863	Manufacture of cement from gypsum.

Wyl]

AND APPLICANTS FOR PATENTS OF INVENTION.

[Yea

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
WYLDÉ, FÉDOR DE - -	1519	17th June 1863	An improved means for the protection and preservation of lead surfaces exposed to the action of water, and for the protection of such surfaces from decomposition by atmospheric action. (Communicated by Dr. Henry Schwarz.)
WYLDÉ, FÉDOR DE - -	2383	17th Sept. 1863	Manufacture of an hydrated silica.
WYLDÉ, FÉDOR DE - -	2550	17th Oct. 1863	Improvements in the induration of stone, cement, stucco, brick or other analogous materials, also in the manufacture of artificial stone.
WYLDÉ, FÉDOR DE - -	2551	17th Oct. 1863	Separation of molasses and other impurities from sugar crystals. (Communicated by Dr. Henry Schwarz.)
WYMER, FRANCIS WILLIAM -	252	28th Jan. 1863	Steam-engines.

Y.

YAPP, GEORGE WAGSTAFF -	2566	20th Oct. 1863	Improvements in surface condensers for steam and other vapours. (Patented by William Snell.)
YAPP, GEORGE WAGSTAFF -	2949	24th Nov. 1863	Preservation of animal substances. (Communicated by Edouard Gorges.)
YATES, GEORGE - - -	2021	15th Aug. 1863	An improved method of and apparatus for indicating the number of tubs or other measures or quantities of coal or other substance or material drawn from pits or mines.
YATES, GEORGE - - -	2789	10th Nov. 1863	Machinery to be used in the manufacture of heel tips and toe tips and toe plates for boots and shoes.
YATES, HENRY - - -	32	5th Jan. 1863	Improvements in machinery used in the manufacture of shovels and spades, and for raising and shaping metals for other purposes.
YATES, JAMES - - -	542	26th Feb. 1863	Manufacture of armour plates or blocks for defensive purposes.
YATES, JAMES - - -	2051	18th Aug. 1863	Improvements in the manufacture and fitting or securing of armour plates, blocks or bars, and in the machinery or apparatus employed therein, parts of which improvements are applicable to heavy forgings generally.
YATES, JOSEPH ATKINSON -	447	18th Feb. 1863	Apparatus for traversing guns. (Patented by Frederic John Reed.)
YEADON, EDWIN - - -	992	21st April 1863	Improved healds for weaving.
YEADON, HUDSON - - -	992	21st April 1863	Improved healds for weaving.
YEADON, JOHN - - -	992	21st April 1863	Improved healds for weaving.
YEADON, SAMUEL - - -	992	21st April 1863	Improved healds for weaving.

Yor]

ALPHABETICAL INDEX OF PATENTEES, &c.

[Zox

Name of Patentee.	Number of Patent.	Date.	Subject-matter of Patent.
YORK, JOSIAS BULL - -	2198	7th Sept. 1863	Privies or closets to be used in place of water-closets.
YORK, JOSIAS BULL - -	2218	9th Sept. 1863	Privies or closets to be used in place of water-closets.
YOUNG, JAMES - - -	106	13th Jan. 1863	Improved compositions for preventing incrustation and corrosion in steam-boilers and condensers.
YOUNG, JAMES - - -	1941	6th Aug. 1863	Preservation of animal matter.
YOUNG, ROBERT - - -	2167	2nd Sept. 1863	Separating and elevating apparatus for grain or granular matters.
YOUNG, THOMAS - - -	1363	2nd June 1863	Certain improvements in apparatus for feeding or supplying water to steam-boilers.
YOUNG, WILLIAM - - -	697	14th March 1863	Type composing and distributing machines.

Z.

ZORRIS, CHARLES FERDINAND	3267	24th Dec. 1863	Permanent way of railways. (Patented by Richard Archibald Brooman.)
ZOX, RAPHAEL - - -	2456	7th Oct. 1863	Manufacture of academic caps.

LONDON:
Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.



